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MORTUARY EXPERIENCE

OF

The Mutual Benefit

LIFE INSURANCE COMPANY,

Newark, N. J.

1845-1879.



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1880



NEWARK, N. J., June 1, 1879.

BLOOMFIELD J. MILLER, Esq.,

*Actuary Mutual Benefit Life Insurance Company:*

SIR—You are hereby requested to collate the Mortuary Statistics of the Company in a suitable form for publication. I am of the opinion that the results of the Company's experience during the past thirty-four years cannot fail to throw much light upon matters of almost vital consequence to the safe conduct of the business ; and I would particularly call your attention to the following points :

1st. It is claimed by many that Life Insurance Companies are exposed to a special risk arising from the discontinuance or surrender of Policies *at the option of the insured*, it being asserted that the lives having the highest degree of vitality are in the main those which withdraw from the Company. Does it appear that this Company has suffered from this cause ; and if so, to what extent ?

2d. Does the Company's experience confirm the prevailing opinion that the issue of "Term" Policies is unprofitable and injudicious ?

3d. What was the result of the Company's experience and practice on "war risks," during the late war ?

I desire special reference paid to the above points ; but I also wish the Company's experience presented in such other form as may seem to you best for examination and general review.

Yours truly,

LEWIS C. GROVER, *President.*



NEWARK, N. J., October 1, 1880.

LEWIS C. GROVER, Esq.,

*President of The Mutual Benefit Life Insurance Company :*

SIR—In pursuance of your Letter of Instructions, dated June 1, 1879, I have the honor to submit the following results of my examination into the Company's Mortuary Experience from the date of its organization to the close of the calendar year 1879.

The accompanying tables and charts will be found to require but little explanation ; but in order that their value should be fully appreciated, it is important that the system and principles which have been adopted in the investigation should be clearly stated

The facts in regard to each policy that had ever paid a premium were written upon a separate card, of which the following is a sample :

No. of }  
Policy, { 22,043.                      Amount of }  
Policy, { \$5,000.

In 1867 reduced to \$1,500.

	DAY.	MONTH.	YEAR.
Date of Issue.....	15	1	1864
Date of Exit.....	26	10	1869
Age at Issue .....			28
Age January 1, 1865 .....			29
Mode of Exit.....			Death.

Where more than one policy had been issued upon the same life, the respective cards were gathered together and confined by an elastic band. The card representing the original policy was placed on top, and on the back of each subsequent card the numbers of all preceding issues were written in proper order. This precaution made it easy to avoid errors that were likely to arise from the accidental separation of the cards. Each of these groups of cards was treated as one policy, issued at the original date ; but the variation in the amount insured from year to year was accurately noted in presenting the Company's Loss Experience.

The cards were arranged according to the years of issue of the original policies, and the experience on each group was made up for each succeeding calendar year. Where a life was not exposed to risk for the entire year, it was counted at its fractional value. During the first year of insurance the duration of the risk averages a little under half a year ; so that the lives actually exposed represent a little less than half as many full years of life.

With the exception of a few policies issued at the inception of the Company, no risks have been taken upon female lives ; and no risks have been taken except on presumably healthy lives.

The ability of a Life Insurance Company to fulfil its policy obligations depends chiefly upon the adequacy of its Premium Rates and the maintenance of a proper Reserve Fund. Both of these matters are governed primarily by the Table of Mortality which may be adopted as a standard. The more nearly the Standard Table conforms to the Company's actual experience, after the elimination of any specially disturbing factors, the greater will be the reliance that may be placed upon it as a safe index of the future death-rate. An established Life Insurance Company should be able to carry out all existing contracts, even if the issue of all new Policies should be entirely suspended ; and it is therefore important that the Standard Table should indicate as high a rate of mortality as may be expected even under the most unfavorable circumstances. The usual theory is, that the Standard Table should give the true death-rate at all ages for unselected lives belonging to the class usually seeking insurance, and that as the Company

can, by the rejection of all undesirable candidates, be sure that any discrepancy between the assumed and actual death-rates will be in its favor, the variation can be adjusted in the yearly dividends. There are, however, as you say, some who hold that, owing to the constant withdrawal from the Company of presumably healthy lives, the death-rate among old members will gradually exceed the normal rate among unselected lives ; and that the Company should reserve the profits arising from the original favorable selection, to meet the losses arising from the subsequent adverse selection.

As directed, I have paid special attention to the Evidences of Selection, and present the following facts for your consideration.

Table II. shows the Company's General Experience, according to age of the insured at time of exposure to risk.

Table IV. gives the experience during the first and second years of membership only, during which period the benefits of favorable selection are the most apparent.

Table V. gives the experience, excluding the first fifteen years of membership. If adverse selection is to be feared at all, we should look for strong indications of it in this division of the Company's Experience, covering, as it does, 58,896 years of life and 1,356 deaths, the years of membership ranging from the 16th to the 35th, inclusive.

Table VI. shows the death-rate for each age according to each of the foregoing observations, and also the death-rate according to the most approved Tables of Mortality.

The Company's Experience at separate ages exhibits marked irregularities, owing to the small number of lives under observation, and a careful adjustment is therefore necessary to a proper understanding of its import. The rates given in Table VI. are the result of such an adjustment. They may be relied upon as a faithful expression of the Company's Experience.

The formula made use of in securing a satisfactory result was

$$\frac{dx}{lx} = a + bq^x$$

where  $x$  signifies the age at exposure, and  $a$ ,  $b$ , and  $q$  are constants suited to the occasion.

In the adjustment of Table II.,  $a = .005829$ ,  $b = .000034487$ , and the logarithm of  $q = .045$ .

In the adjustment of Table IV. the values were :

$$a = .005152, b = .000020537, \text{ logarithm of } q = .046.$$

In the adjustment of Table V. the values were :

$$a = .006740, b = .000034982 ; \text{ logarithm of } q = .045.$$

Chart A presents to the eye what Table VI. presents to the mind, and gives the readiest means of comparing the various observations.

It will be noticed that each of the curves representing the Company's Experience is more nearly in accord with the line representing the American Experience Table than with either the Old or New Actuaries' Table; and the correspondence is indeed so close, that if we were to frame a Standard Table from our own experience, we would not be justified in any material variation from the American Table. I have, therefore, adopted the American Table as the best available index of the death-rate upon unselected American lives of the class usually seeking insurance.

After the elimination of disturbing factors, the line representing the Company's Experience should be nearly parallel with the standard line and within a reasonable distance of it, otherwise the correctness of the Standard will be open to suspicion. The lines representing the Company's Experience on both old and young business are so nearly parallel with the Standard line that they afford a strong confirmation of its accuracy. The death-rate during the first two years of membership is, of course, much below the Standard; but the death-rate on old business, where the benefits of selection must have nearly disappeared, corresponds so closely with the American Experience, that it seems reasonable to believe that if all benefits of selection



had vanished, the Company's Experience would have been practically identical with the Standard.

This argument is based upon the assumption that there is no element of adverse selection in the business. The assumption is not altogether warranted; but I expect to show hereafter that the influence of adverse selection is not sufficiently strong or constant to invalidate the conclusion. The line representing the Company's General Experience is disproportionately low at the younger ages; but this is plainly owing to the fact that at those ages the experience is limited to the earlier years of membership.

By comparing the actual deaths during different years of membership, with the computed number, according to the American Experience Table, much light is thrown upon the question of selection. Table VII. and Chart B show that during the first year of insurance the actual deaths are but 60 per cent. of the computed deaths.

The ratio rapidly increases to 86 per cent., and continues at that point from the fourth to the fifteenth year of membership. The ratio then rises by successive steps until in the twenty-fourth year it reaches 104 per cent., which is the maximum. The ratio then diminishes until in the thirty-fifth year it is but 76 per cent.

If the ratio rose gradually to 100 per cent., and then continued at that point, we could safely conclude that there was no element of adverse selection, but that the increase was simply occasioned by the dying out of the original favorable selection, owing to the simple lapse of time. Such a result would be expected even if there were no voluntary withdrawals from the Company. Two elements enter into the original selection. The physical examination insures the freedom from developed disease tending to speedy death, and the rejection of all applicants whose antecedents are unfavorable to longevity exerts another and more lasting influence upon the death-rate. The physical examination has the most powerful influence while it lasts, but of necessity dies out in a few years. Even the inherited tendency to longevity

must die out when the older ages of life are reached ; and it would not be at all a cause for surprise, if after the lapse of twenty-five years all of the benefits of the original selection were found to have vanished. It is probable, however, that the observed increase in the ratio of actual to computed deaths during the first twenty-five years is partly owing to an adverse selection caused by the withdrawal of risks of more than an average vitality ; but admitting this to be the case, we have still to account for the reappearance of a favorable selection during the later years of membership:

This fresh accession of vitality cannot be attributed to chance, as a similar phenomenon is apparent in the experience of The Mutual Life Insurance Company of New York, and in the combined experience of the English Companies, upon which the New Actuaries' Table of Mortality is based. The falling off in the ratio of actual to computed deaths noticeable in the business, can only be attributed to a tendency to withdraw from the Company on the part of members who have passed the productive period of life without having accumulated sufficient to provide for their support in their old age. It is not unnatural to expect a lower degree of vitality among the old that have worn themselves out in the struggle of life, and find themselves at the end of their resources, than in the more successful class that have achieved a competency and can pursue the journey of life free from exposure to the mental and physical ills which follow in the train of hopeless poverty.

The experience of the English Companies shows that the withdrawals at the younger ages of life tend strongly to raise the death-rate even in the later years of membership ; and there is no doubt that voluntary withdrawals at all ages exert an unfavorable influence during the earlier years of membership, and that withdrawals at the younger ages are injurious to the Company even in the later years of membership. In support of this statement I give the following table, based upon the experience of the English Companies, and extracted from a paper by Mr. T. B. Sprague in the Journal of the Institute of Actuaries for April, 1870.

PRESENT AGES.	YEARS OF INSURANCE.	NUMBER AT RISK.	ACTUAL DEATHS.	PROBABLE DEATHS.	PER-CENTAGE	PRESENT AGES.	YEARS OF INSURANCE.	NUMBER AT RISK.	ACTUAL DEATHS.	PROBABLE DEATHS.	PER-CENTAGE.
21 to 25	0	8,814.	24	66.97	35.8	61 to 65	0	759.5	7	28.24	24.8
	1	12,857.5	76	97.89	77.6		1	1,652.5	38	61.73	61.6
	2, 3	13,698.5	97	104.57	92.8		2	1,795.5	48	66.53	72.1
	4	3,124.5	29	23.89	121.4		3-5	5,897.	215	219.64	97.9
	5, 6	2,858.5	31	21.80	142.2		6-11	13,168.5	495	493.24	100.4
	7-10	1,217.	15	9.34	160.6		12-15	9,142.5	354	343.02	103.2
31 to 35	0	12,510.	66	111.58	59.2	71 to 75	16-21	11,720.5	463	440.95	105.0
	1	23,480.5	141	209.50	67.3		22-25	6,698.	257	252.17	101.9
	2	21,583.5	164	192.49	85.2		26-31	6,705.	258	253.74	101.7
	3	19,333.5	169	172.56	97.9		32-end.	3,239.5	123	124.71	98.6
	4-7	56,488.5	505	505.28	99.9	Summary for all Ages.	0	80.	1	6.23	16.1
	8-11	24,229.5	237	217.86	108.8		1	188.	12	14.98	80.1
41 to 45	12-20	5,607.5	60	50.82	118.1		2, 3	420.	30	33.38	89.9
	0	6,925.	29	78.13	37.1		4, 5	573.5	45	45.19	99.6
	1	13,904.	110	156.85	70.1		6-9	1,707.	137	135.27	101.3
	2	13,619.5	138	153.29	90.0		10-17	4,692.5	397	376.75	105.4
	3	13,172.	141	148.42	95.0		18-21	2,699.5	229	217.02	105.5
	4-7	49,349.5	556	557.34	99.8		22-32	5,998.	499	484.80	102.9
51 to 55	8-12	48,833.5	581	552.51	105.2		33-end.	2,654.	198	216.78	91.3
	13-15	18,948.5	229	215.23	106.4	Summary for all Ages.	0	63,644.5	290	687.91	42.2
	16-19	12,863.5	182	147.08	123.7		1	116,565.	891	1,310.63	68.0
	20-30	4,247.5	64	49.19	130.1		2	103,312.5	1,028	1,208.71	85.0
	0	2,832.	23	53.53	43.0		3-5	252,291.5	3,177	3,213.78	98.86
	1	5,896.	56	111.55	50.2		6-10	288,416.	4,515	4,389.88	102.85
51 to 55	2	5,959.	92	112.65	81.7		11-15	170,529.	3,589	3,347.24	107.22
	3	6,015.	104	114.07	91.2		16-20	96,560.	2,614	2,514.69	103.95
	4-6	18,004.5	323	342.08	94.4		21-25	52,939.5	1,877	1,818.28	103.23
	7-10	23,104.5	428	439.17	97.5		26-30	26,232.5	1,210	1,180.11	102.53
	11-14	21,280.	430	404.35	106.3		31-63	18,468.	1,250	1,228.77	101.73
	15-18	17,338.	354	330.73	107.0						
51 to 55	19-22	12,765.5	271	244.61	110.8						
	23-40	10,834.	221	210.52	105.0						

NOTE.—“Probable Deaths” computed according to “Old” Actuaries Table.

It will be seen that the English Companies have suffered from withdrawals to a far greater extent than has The Mutual Benefit ; for within the first ten years of membership the total deaths rise to 103 per cent. of the computed number by the Old Actuaries' Table of Mortality, and that they continue above the Standard ever after. From the 11th to the 15th year of membership, the actual deaths are 7 per cent. above the Standard, and would be found considerably more above the computed number according to the American Experience Table.

The ratio is diminished during the later years of membership, but is still far higher than according to The Mutual Benefit's Experience.

Our experience is not large enough to admit of so minute division as that of the English Companies; but in order to see if the falling off in the ratio during the later years of membership in our Company followed the same general law, I have divided the last ten years of membership (26th to 35th) into young and old lives, all ages above age 60 being included in the latter class.

I find that in the younger class the actual deaths were 115, or 106 per cent. of the computed number 108. In the older class the actual deaths were 325, or 89 per cent. of the computed number 364. This supports the general rule above stated, that withdrawals at the younger ages effect an adverse selection even during the later years of membership.

It is, however, important to note that the injurious effect of withdrawals has been so slight in our experience that it would hardly have been suspected if it had not been for the experience of the English Companies. I think it not too much to say, that what slight traces of adverse selection are noticeable at the younger ages in our experience are met and neutralized by a favorable selection from the same cause at the higher ages.

There seems to be no reason to apprehend any evil results in the future from adverse selection, so long as The Mutual Benefit retains the confidence of its members. I have no doubt, however, that in a Company whose solvency has become impaired, the adverse selection would be far more noticeable, owing to the fact that the best lives would be specially tempted



to transfer their insurance to other Companies; while the worst lives would have no such resource open to them, and would have to cling to their Policies, notwithstanding their doubts as to the stability of the Company.

I have said that the traces of adverse selection in The Mutual Benefit are so slight as to be hardly noticeable. Tables IX. and XI. will strongly confirm this opinion. In Table IX. the Company's Experience is separated into different groups in accordance with the years of issue of its Policies. It will be noticed that among the lives insured between the years 1845 and 1854, inclusive, there have occurred to date 1,838 deaths, while the computed deaths, according to the American Experience Table, are 1,871. Among the lives insured between the years 1855 and 1864, the actual deaths to date have been 2,043, whereas the computed deaths are 2,411. In the first case the percentage of Actual to Probable Deaths is 98.2 per cent. In the second case 84.7 per cent. If there was any important element of adverse selection in the business, these percentages could hardly fail to be much higher. The rather high rate noticed in the first group may be attributed to a somewhat unfavorable experience in the early years of the Company's history (See Table XIV.), instead of to an adverse selection in later years.

Table X. shows the Company's Experience upon Paid-up Policies for reduced amounts allowed as surrender values for discontinued Policies. If it were true that members discontinuing their insurance have a more than average degree of vitality, we should expect to find the losses occurring under Paid-up Policies correspondingly light when compared with the Company's General Experience. At first sight this would seem to be the case, for the total number of deaths occurring under this class of risks appears to be but 70.5 per cent. of the computed number. It should, however, be borne in mind, that many of the Company's Policies have become converted by non-payment of premiums into Paid-up Insurance for reduced amounts without the surrender of the original, or the issue of new Policies. It is not unlikely that in many of these cases the Policies have become mislaid or have been regarded

as valueless, and deaths occurring under them have not been reported to the Company. It is even likely that where new Paid-up Policies for small amounts have been issued in exchange for Surrendered Policies on which but few premiums have been paid, that some deaths have occurred which have not been reported. The smaller the amount of the Paid-up Policy and the fewer the number of premiums which have been paid on the original Policy, the greater is the probability of the Company not being notified of the death.

In Table XI. will be found the Company's Experience on Paid-up Insurances, excluding all cases where less than three premiums have been paid on the original Policy. This division omits those cases where there is the greatest probability of a death occurring without its being reported to the Company. We now find that the Actual Deaths are 273, against 333 Probable Deaths, or 82 per cent. This rate differs but little from the Company's General Experience for the same years of membership (4th to 35th), the Actual Deaths being 5,653, against 6,441 Probable Deaths, or 88 per cent.

The Paid-up Experience is more favorable by 6 per cent., but the difference is no more than might result from the occasional failure of the parties interested to report a loss to the Company; and in excluding that part of the Paid-up Experience which would be most likely to cover such cases of oversight, there is no reason to suppose that the disturbing cause would be entirely eliminated.

In making up the statistics for Paid-up Policies, all insurances of less than \$100 were excluded, as such cases were regarded as specially liable to become claims without being reported to the Company.

A careful examination of Table XI. will not justify the conclusion that the average vitality among members surrendering their Policies for Paid-up Insurances of reduced amounts, is appreciably higher than among those members who have kept their insurance in force for the full amounts.



Since it does not appear that the death-rate has been appreciably higher than the Standard, even where the conditions of the business offer the greatest warrant for such an expectation, I think it safe to conclude that the Company's Experience has not been influenced by adverse selection to an extent calling for any special attention or precautionary measures.

Tables XII. and XIII. show the Company's Experience upon Term Policies. These Policies were issued for terms ranging from one to seven years. The death-rate has been considerably above the Standard, and compares very unfavorably with the Company's Experience on ordinary Policies. The facts offer abundant reason for the Company's action, some years since, discontinuing the issue of Policies of this class. In compiling the statistics on Term Policies as above given, all cases involving a special war risk were excluded. This was a necessary precaution, for during the late war a considerable number of risks were taken upon parties entering into active service, and in most cases the Policies were issued for three years at regular term rates, supplemented by an extra annual premium equal to 5 per cent. of the amount of the Policy. The deaths under this class of risks were naturally much in excess of the computed number; and as this excess had no direct connection with the fact that the Policies were issued on the Term Plan, but arose from other and special causes, it was necessary to exclude these cases from statistics bearing simply upon Term Policies as such.

The number of deaths reported under Term Policies issued in connection with Special War Permits was 39. The probable number by the American Experience Table was 8. The ratio of Actual to Probable Deaths was 4.87.

The extra premium of 5 per cent. of the amount insured was on the average equal to about five times the tabular cost of insurance, and the Company was therefore prepared for

about six times the tabular death-rate. The close correspondence between the extra premium charged and the ascertained value of the extra risk, affords gratifying proof of the correctness of the Company's practice in these cases.

The tables not heretofore referred to require but little comment.

Table I. is elementary, and gives the Company's Experience at each age, subdivided into years of membership. It is the basis of most of the subsequent tables, and is in the most convenient form for general actuarial use.

This table, however, has one interesting feature for the general observer. If read downwards diagonally to the right, it gives the yearly record of the same group of lives, and approximately the number of risks terminated from year to year, by causes other than death.

For example, under age 40, 2d year of membership, the years of life are 2,018 and the deaths are 9. Under age 41, 3d year of membership, covering the same group of lives, the years of life are but 1,777, showing that during the 2d year of membership about 232 risks were terminated from causes other than death.

Tables III. and VIII. are merely summaries of Tables II. and VII., presenting the same facts in five-year groups. In these groups the unadjusted ratios will be found substantially in accord with the adjusted experience as shown by Charts A and B.

Table XV. has no special scientific value, but is not without interest as indicating the general correspondence between the Company's Experience and the American Experience Table, and also as affording some indication of the comparative healthfulness of different years.

Trusting that you will find the points referred to in your letter satisfactorily covered by the foregoing observations and accompanying Charts and Tables, I am,

Very respectfully, yours,

BLOOMFIELD J. MILLER,

*Actuary.*

TABLE I.

Mortuary Experience of The Mutual Benefit Life Insurance Company from 1845 to 1879 inclusive, showing  
YEARS OF LIFE and ACTUAL DEATHS at each age, for each year of Membership.

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	11		12		13		14		15	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	....	..	.3	..	1.9	..	21.9	..	21.6	..
2d	....	..	....	..	1.0	..	16.8	..	33.3	1
3d	....	..	....	..	....	..	1.0	..	15.0	..
4th	....	..	....	..	....	..	....	..	.7	..

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	16		17		18		19		20	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	32.0	..	63.8	..	97.9	..	146.4	1	271.1	2
2d	49.0	..	67.8	..	135.0	1	196.9	2	300.7	4
3d	28.5	..	38.5	1	58.1	..	112.1	1	155.2	4
4th	13.8	..	25.0	1	31.2	..	55.2	..	100.7	1
5th	....	..	13.0	..	23.2	..	28.5	..	50.8	..
6th	....	..	....	..	11.5	..	20.4	1	24.3	..
7th	....	..	....	..	....	..	9.9	1	18.7	..
8th	....	..	....	..	....	..	....	..	9.0	..

TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	21		22		23		24		25	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	421.6	5	582.2	4	745.4	4	869.3	4	970.5	8
2d	589.1	5	842.2	5	1,120.6	10	1,410.7	2	1,625.8	15
3d	249.8	5	486.5	1	715.3	6	919.5	11	1,187.5	6
4th	137.1	..	220.6	2	440.8	2	644.5	5	823.8	6
5th	97.0	..	127.0	1	199.3	..	409.3	1	576.4	3
6th	48.8	1	84.8	1	111.7	3	184.4	..	375.5	1
7th	21.1	1	45.7	..	79.2	..	96.3	1	165.7	2
8th	17.1	..	19.0	1	40.7	..	70.4	..	86.5	..
9th	9.0	..	15.0	..	15.9	..	37.6	..	62.7	..
10th	....	..	8.7	..	14.2	..	17.0	..	31.0	..
11th	....	..	....	..	8.0	..	13.0	..	16.0	..
12th	....	..	....	..	....	..	7.0	..	13.0	..
13th	....	..	....	..	....	..	....	..	7.0	..

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	26		27		28		29		30	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	1,131.7	7	1,197.5	12	1,221.1	4	1,286.7	7	1,418.1	2
2d	1,744.2	15	2,061.5	10	2,200.7	13	2,217.4	9	2,353.9	12
3d	1,379.3	12	1,483.5	5	1,766.2	19	1,918.8	12	1,914.0	16
4th	1,061.6	14	1,250.6	12	1,362.4	7	1,601.8	11	1,738.1	8
5th	753.0	6	967.8	8	1,140.2	8	1,236.8	11	1,446.7	6
6th	518.4	6	676.3	3	887.4	3	1,018.8	11	1,115.8	6
7th	342.0	2	469.8	2	603.6	4	810.5	6	921.5	11
8th	151.6	2	304.8	3	426.1	1	551.9	4	756.3	4
9th	78.7	..	139.3	2	278.1	1	389.2	1	510.3	2
10th	59.5	..	63.8	..	128.4	3	252.1	1	355.7	2
11th	30.9	..	57.1	1	55.4	..	115.2	2	226.9	..
12th	15.0	..	26.1	..	51.0	..	48.9	..	104.7	2
13th	12.0	..	12.0	..	18.0	..	41.7	1	38.5	..
14th	6.0	..	9.0	..	11.0	..	15.0	..	34.5	2
15th	....	..	5.9	..	7.8	..	10.0	..	11.0	..
16th	....	..	....	..	6.0	..	5.0	..	6.0	..
17th	....	..	....	..	....	..	4.0	..	2.0	..
18th	....	..	....	..	....	..	....	..	4.0	..

TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	31		32		33		34		35	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	1,317.0	6	1,413.4	7	1,380.6	2	1,317.5	4	1,288.5	9
2d	2,443.0	13	2,437.8	17	2,497.8	18	2,461.6	17	2,469.8	18
3d	2,038.2	10	2,146.9	11	2,110.1	15	2,190.6	19	2,136.9	20
4th	1,737.7	10	1,856.0	20	1,944.3	7	1,927.3	11	2,006.2	20
5th	1,534.0	14	1,610.4	14	1,681.7	15	1,788.5	15	1,767.0	16
6th	1,345.1	13	1,411.7	10	1,441.1	15	1,537.2	11	1,645.8	10
7th	1,021.5	9	1,232.4	9	1,314.4	12	1,318.3	8	1,419.6	7
8th	846.1	10	948.9	3	1,148.7	8	1,213.2	13	1,228.0	11
9th	674.3	6	778.2	10	885.2	4	1,060.3	3	1,127.2	11
10th	456.6	4	623.2	4	706.2	8	813.4	3	970.8	12
11th	320.3	4	405.5	5	542.4	2	643.4	5	726.8	9
12th	195.5	4	280.3	2	361.8	1	486.5	3	567.6	2
13th	77.8	2	154.4	1	231.9	..	290.3	3	392.4	2
14th	29.5	..	59.5	1	119.3	1	190.1	..	244.0	1
15th	26.1	..	26.0	..	43.8	..	91.5	2	143.1	1
16th	8.0	..	20.0	..	15.2	..	27.4	..	73.2	..
17th	3.6	..	6.0	..	8.0	..	10.0	..	16.7	1
18th	2.0	..	3.0	..	6.0	..	4.0	..	6.0	..
19th	2.0	..	2.0	..	3.0	..	6.0	..	4.0	..
20th	....	..	2.0	..	2.0	..	3.0	1	4.2	1
21st	....	..	....	..	2.0	..	2.0	..	2.0	..
22d	....	..	....	..	....	..	2.0	..	2.0	..
23d	....	..	....	..	....	..	....	..	2.0	..



TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	36		37		38		39		40	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	1,216.4	9	1,213.0	5	1,127.3	3	1,076.0	4	1,066.5	6
2d	2,347.5	14	2,265.5	10	2,194.2	11	2,090.7	17	2,017.7	9
3d	2,148.7	11	2,069.2	13	1,962.3	18	1,933.3	11	1,841.6	13
4th	1,956.0	12	1,945.6	12	1,853.1	21	1,795.0	8	1,760.9	18
5th	1,858.0	16	1,774.7	11	1,783.2	17	1,700.0	16	1,651.9	11
6th	1,600.2	13	1,732.8	10	1,636.0	17	1,636.2	20	1,554.6	17
7th	1,513.0	8	1,473.9	17	1,613.8	13	1,527.7	11	1,507.2	12
8th	1,323.4	7	1,397.4	12	1,377.2	14	1,499.7	13	1,419.5	10
9th	1,132.4	6	1,226.0	6	1,293.2	10	1,274.4	10	1,399.3	16
10th	1,044.3	7	1,033.4	5	1,120.5	9	1,226.2	6	1,179.6	13
11th	893.8	6	952.6	8	941.0	2	1,040.0	3	1,109.6	3
12th	654.3	5	785.0	4	857.6	6	844.5	7	931.1	8
13th	481.2	2	557.7	2	688.0	7	731.5	4	722.6	6
14th	328.1	2	409.9	5	489.5	3	606.0	5	625.9	9
15th	198.6	1	275.3	2	321.3	3	413.0	5	497.6	2
16th	101.7	1	154.1	..	219.5	3	254.8	..	332.7	2
17th	46.0	..	69.0	..	103.0	..	143.2	..	192.2	..
18th	11.6	..	39.3	..	60.0	..	81.0	..	107.2	3
19th	6.0	..	11.0	..	35.0	..	50.7	1	70.4	..
20th	4.0	..	6.0	..	10.9	1	33.9	..	42.0	..
21st	4.0	..	2.0	..	4.0	..	8.0	..	29.0	..
22d	2.0	..	3.0	..	2.0	..	4.0	..	7.1	1
23d	1.3	..	2.0	..	3.0	..	2.0	..	4.0	..
24th	2.0	..	1.0	..	2.0	..	2.2	..	2.0	..
25th	....	..	2.0	..	1.0	..	2.0	..	1.0	..
26th	....	..	....	..	2.0	..	1.0	..	2.0	..
27th	....	..	....	..	....	..	2.0	..	1.0	..
28th	....	..	....	..	....	..	....	..	1.0	..



TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	41		42		43		44		45	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	934.1	9	875.5	3	776.7	4	752.2	6	786.0	6
2d	1,877.1	16	1,674.4	16	1,581.1	15	1,443.3	18	1,403.4	7
3d	1,776.8	11	1,642.7	19	1,457.1	10	1,408.3	11	1,284.2	7
4th	1,684.8	17	1,626.8	9	1,479.7	15	1,326.0	8	1,286.9	17
5th	1,623.1	10	1,546.2	13	1,496.2	17	1,359.6	20	1,238.2	9
6th	1,534.9	18	1,482.5	16	1,397.1	10	1,387.6	8	1,257.5	13
7th	1,443.7	10	1,430.9	13	1,392.2	8	1,300.6	8	1,267.3	11
8th	1,391.0	12	1,343.1	16	1,343.1	11	1,282.3	12	1,227.8	10
9th	1,330.7	7	1,303.9	8	1,263.4	13	1,247.6	13	1,202.3	16
10th	1,307.6	11	1,229.4	8	1,222.3	5	1,175.1	13	1,164.6	13
11th	1,091.2	13	1,222.1	13	1,161.8	9	1,125.3	12	1,097.9	19
12th	1,008.2	13	986.5	8	1,123.3	10	1,061.9	10	1,020.1	13
13th	802.5	4	871.2	2	879.1	8	981.1	9	907.5	9
14th	626.8	7	707.2	7	785.3	11	745.8	7	864.7	5
15th	531.4	4	519.1	4	600.3	4	635.8	10	621.0	7
16th	396.8	4	410.6	4	424.4	2	476.4	6	506.6	2
17th	227.4	3	273.4	..	265.2	3	298.7	4	334.2	3
18th	145.0	1	184.2	3	208.1	1	206.5	3	230.9	3
19th	84.5	1	119.8	..	155.1	3	181.2	..	185.8	5
20th	69.0	..	75.8	2	103.4	2	134.5	2	164.9	1
21st	36.5	..	60.1	1	62.5	..	85.0	2	109.0	..
22d	22.0	..	28.7	1	49.0	..	45.6	..	71.2	1
23d	5.0	..	17.7	..	26.0	..	42.4	1	41.3	..
24th	3.0	..	3.0	..	15.9	..	24.0	..	38.1	..
25th	2.0	..	3.0	..	3.0	1	14.4	..	18.7	1
26th	1.5	1	1.0	..	2.6	..	2.0	..	13.0	..
27th	2.0	..	1.0	..	1.0	..	3.0	..	2.0	..
28th	1.0	..	2.0	..	1.0	..	1.0	..	3.0	..
29th	1.0	..	..	..	1.0	..	1.0	..	1.0	..
30th	....	..	1.0	..	....	..	1.0	..	1.0	..
31st	....	..	....	..	1.0	..	....	..	1.0	..
32d	....	..	....	..	....	..	1.0	..	....	..
33d	....	..	....	..	....	..	....	..	1.0	..

TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	46		47		48		49		50	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	660.9	2	597.3	5	538.9	4	464.4	2	469.9	9
2d	1,424.6	8	1,223.4	10	1,103.9	9	980.5	9	905.8	9
3d	1,260.9	7	1,257.2	17	1,093.4	19	993.7	10	855.3	10
4th	1,166.6	12	1,149.9	11	1,140.7	17	1,005.6	11	919.3	15
5th	1,173.2	19	1,077.2	14	1,070.3	10	1,044.8	10	929.1	14
6th	1,129.7	11	1,063.7	9	1,003.8	9	985.3	13	962.4	19
7th	1,169.6	9	1,064.6	8	1,002.8	8	948.3	13	891.3	10
8th	1,192.0	6	1,086.7	11	1,003.8	10	933.7	17	885.3	13
9th	1,161.7	11	1,087.7	8	1,028.6	7	947.9	7	870.0	17
10th	1,117.5	8	1,069.9	4	1,049.8	12	961.8	9	887.7	11
11th	1,075.3	15	1,041.3	7	988.3	13	987.4	11	875.5	9
12th	977.7	6	958.2	10	958.1	6	890.7	13	887.0	7
13th	885.7	7	840.0	12	851.5	5	840.3	9	778.6	8
14th	788.6	10	770.5	7	726.8	10	747.6	6	726.8	8
15th	716.3	6	643.2	8	645.0	5	608.4	6	610.4	8
16th	513.2	3	577.1	7	509.4	5	509.5	4	484.5	6
17th	359.4	4	332.3	6	388.1	4	341.9	6	336.4	4
18th	276.3	3	275.8	4	265.0	5	314.6	3	277.2	1
19th	196.9	1	219.1	..	240.2	2	224.0	5	270.6	3
20th	168.9	..	177.4	3	202.7	3	222.3	5	206.1	4
21st	135.7	..	145.5	..	150.0	1	174.3	..	186.1	1
22d	81.8	2	113.1	1	128.9	2	129.5	4	146.9	6
23d	58.5	2	72.3	1	98.9	1	111.1	3	110.0	1
24th	39.0	..	51.8	..	69.4	1	88.8	2	105.4	1
25th	37.0	1	34.0	..	47.0	..	67.7	2	78.4	2
26th	14.2	1	33.0	..	30.0	1	45.4	2	58.6	1
27th	11.0	1	12.0	..	30.8	..	26.4	1	41.9	1
28th	2.0	..	9.9	1	9.7	1	28.0	..	25.0	..
29th	2.0	..	2.0	..	8.0	..	7.0	..	31.6	1
30th	1.0	..	2.0	..	2.0	..	6.0	..	4.9	2
31st	1.0	..	1.0	..	2.0	..	2.0	..	5.0	..
32d	1.0	..	....	..	1.0	..	1.0	..	2.0	..
33d	....	..	1.0	..	....	..	1.0	..	.3	..
34th	.4	..	....	..	1.0	..	....	..	....	..
35th	....	..	....	..	....	..	....	..	....	..

TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	51		52		53		54		55	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	394.9	3	323.4	4	323.1	2	249.0	3	246.9	3
2d	807.4	11	708.0	6	601.1	6	591.0	6	449.3	4
3d	795.8	10	713.5	8	630.0	14	540.7	3	529.8	9
4th	785.3	11	723.1	9	662.6	6	576.1	10	493.8	7
5th	847.5	14	720.1	11	666.8	14	625.8	4	523.7	16
6th	851.6	9	789.5	9	654.6	14	615.6	12	583.4	7
7th	899.1	9	797.9	12	743.3	8	622.3	5	580.3	7
8th	858.4	7	853.8	9	744.0	11	697.7	7	588.4	10
9th	833.8	14	810.9	7	804.3	17	705.2	8	658.9	4
10th	810.3	7	778.4	10	768.2	11	748.8	15	658.8	11
11th	814.5	17	750.9	8	717.8	5	690.2	11	686.3	9
12th	793.7	8	717.8	8	659.3	16	640.8	13	609.6	10
13th	748.7	11	696.3	12	622.8	8	565.1	11	542.7	8
14th	670.5	9	647.9	14	585.1	6	540.8	5	486.4	6
15th	590.6	4	555.2	8	510.8	4	488.2	9	457.9	6
16th	487.2	9	474.0	2	412.8	11	398.8	5	372.5	11
17th	334.2	7	345.2	6	319.6	4	275.3	..	267.5	4
18th	250.8	1	257.3	3	252.1	4	235.2	2	199.9	3
19th	243.7	2	210.7	3	211.2	2	215.2	3	191.7	3
20th	243.0	4	218.4	1	189.0	2	188.1	3	195.4	2
21st	178.9	4	196.5	3	178.1	6	156.7	1	165.9	5
22d	154.9	..	151.2	1	172.0	3	147.5	2	139.5	4
23d	139.9	..	132.7	1	133.7	3	156.4	1	138.2	..
24th	97.5	4	130.0	1	124.4	3	126.0	2	143.9	5
25th	100.4	1	88.5	1	122.0	3	116.3	1	117.9	3
26th	68.5	1	92.8	3	84.4	2	108.0	3	110.9	2
27th	55.8	1	64.4	1	85.0	..	78.3	2	95.6	2
28th	34.5	..	53.0	..	58.2	..	83.0	..	70.3	3
29th	22.0	..	33.0	..	50.7	1	52.0	..	72.6	2
30th	27.0	..	21.1	1	30.7	2	44.3	1	48.3	2
31st	4.0	..	24.8	1	18.7	1	28.0	1	42.1	..
32d	5.0	..	3.0	..	20.0	..	18.1	1	20.0	..
33d	1.0	..	4.0	..	2.0	..	17.0	..	11.7	..
34th	....	..	1.0	..	2.0	..	2.0	..	11.0	..
35th	....	..	....	..	....	..	....	..	....	..

TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	56		57		58		59		60	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	211.1	4	174.2	3	150.8	2	136.9	1	123.1	..
2d	442.5	6	360.6	10	308.3	5	263.3	6	241.3	3
3d	391.6	7	388.7	3	319.8	3	284.0	3	241.5	4
4th	495.2	5	359.2	3	353.3	13	286.0	11	257.7	8
5th	456.2	4	455.8	11	334.4	5	325.7	8	264.2	6
6th	473.6	12	421.1	9	421.4	9	312.6	4	310.2	5
7th	525.9	8	441.1	6	392.3	8	392.4	13	293.0	5
8th	540.8	9	512.9	8	412.8	7	355.3	8	365.4	7
9th	553.3	7	505.7	15	478.5	13	383.6	14	334.0	8
10th	610.1	11	529.5	9	465.2	11	440.0	11	347.6	7
11th	615.3	13	558.2	11	475.2	8	425.3	9	404.2	9
12th	614.9	10	550.2	8	502.6	7	421.1	7	374.2	14
13th	535.3	10	544.1	7	469.1	13	418.3	17	350.5	7
14th	454.7	12	443.2	10	467.9	7	403.4	6	346.5	13
15th	387.3	3	364.8	13	340.5	7	374.8	11	302.9	3
16th	365.4	2	296.8	5	282.6	4	245.5	4	278.5	5
17th	241.0	3	236.8	9	201.8	4	183.8	8	156.4	3
18th	213.8	3	182.5	4	175.1	3	152.2	2	137.1	3
19th	164.6	4	190.1	3	157.2	3	158.2	2	119.7	3
20th	173.4	2	140.0	6	170.6	4	136.5	1	132.0	4
21st	172.0	1	153.1	3	119.2	2	143.8	4	121.2	2
22d	144.9	3	150.7	3	125.8	2	100.7	1	125.8	2
23d	122.2	4	126.9	2	128.3	6	102.0	1	87.9	6
24th	128.5	4	108.6	1	115.0	3	116.7	1	93.6	3
25th	135.3	2	119.1	1	102.4	2	107.8	..	114.0	2
26th	109.0	5	123.5	1	110.4	6	95.5	2	102.4	4
27th	101.2	1	104.0	..	113.8	4	102.7	1	88.0	2
28th	89.9	1	92.5	4	98.2	..	104.9	2	98.8	1
29th	64.6	..	80.4	2	81.4	4	94.3	2	99.2	3
30th	62.6	2	59.8	1	76.7	1	75.3	3	85.8	1
31st	39.5	1	55.8	..	55.2	1	70.0	..	65.4	1
32d	38.8	1	34.4	1	46.8	1	46.5	1	60.5	2
33d	19.0	..	32.9	2	27.0	..	36.9	1	30.5	1
34th	6.0	..	12.0	..	18.0	..	19.0	..	22.0	..
35th	2.0	..	2.2	1	4.0	..	3.0	..	4.8	1



TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	61		62		63		64		65	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	83.5	1	64.7	3	62.2	2	65.1	..	52.6	..
2d	194.2	3	150.2	1	122.7	4	116.2	1	149.5	5
3d	225.2	2	179.2	2	137.0	3	110.4	4	106.8	4
4th	218.2	8	209.2	7	164.3	3	129.8	4	103.3	2
5th	236.1	8	206.4	3	192.6	5	149.0	3	124.4	5
6th	242.6	8	218.5	4	189.1	7	176.1	5	142.0	5
7th	278.9	10	219.5	6	201.8	7	172.8	7	161.8	5
8th	279.4	6	261.6	7	203.5	5	189.4	5	163.4	8
9th	340.0	9	259.3	7	248.2	8	190.4	6	171.8	5
10th	310.4	9	313.0	7	238.0	5	222.4	7	172.3	2
11th	316.7	10	280.9	5	286.9	11	206.3	9	204.9	9
12th	356.8	3	272.1	11	244.6	8	240.0	7	176.1	4
13th	300.0	8	306.1	4	224.2	9	198.9	8	201.4	6
14th	298.2	7	246.9	9	259.7	11	182.2	5	167.2	3
15th	266.4	13	233.3	7	191.6	7	205.5	6	148.3	4
16th	234.5	4	201.7	3	182.4	7	139.6	2	156.6	7
17th	173.1	3	141.3	7	133.9	8	107.2	4	87.7	2
18th	115.8	5	119.4	1	97.3	3	97.7	4	79.3	5
19th	116.2	2	92.9	2	89.2	2	77.1	1	84.5	1
20th	104.8	1	101.9	1	80.1	1	75.9	6	67.6	3
21st	113.9	..	90.0	5	81.6	5	66.9	3	57.2	3
22d	105.1	5	101.2	1	67.9	3	69.5	1	58.9	2
23d	111.6	7	95.0	..	87.2	3	58.5	4	60.8	3
24th	76.8	3	101.0	1	85.7	2	80.1	6	51.7	1
25th	78.3	5	73.5	3	94.3	4	81.5	4	74.1	4
26th	103.6	2	74.2	2	71.2	1	87.9	3	74.0	2
27th	98.7	1	96.7	2	64.9	3	67.4	2	84.8	1
28th	82.9	..	93.3	1	85.9	5	62.0	..	62.0	1
29th	93.8	..	76.8	5	86.9	4	79.5	2	56.3	4
30th	90.0	3	86.0	4	67.4	3	79.0	3	70.5	7
31st	74.8	3	81.5	1	77.1	2	57.4	3	69.5	1
32d	54.8	1	59.9	3	62.1	..	63.8	2	41.8	1
33d	39.3	2	41.3	..	42.6	2	53.8	..	52.0	1
34th	17.0	..	18.7	1	18.7	..	19.4	..	31.7	2
35th	7.0	..	4.0	..	7.0	..	2.0	..	8.0	..

TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	66		67		68		69		70	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
1st	2.9	..	1.4	..	....	..	....	..	....	..
2d	64.5	2	5.7	1	2.4	..	....	..	....	..
3d	139.5	4	62.9	1	5.0	..	2.0	..	....	..
4th	97.7	4	133.2	5	60.6	1	2.1	..	2.0	..
5th	106.2	2	89.0	6	123.8	4	56.3	4	3.0	..
6th	114.1	4	97.4	2	84.0	3	112.2	6	47.4	5
7th	132.1	6	108.3	5	91.7	4	78.0	3	104.4	4
8th	151.1	8	121.9	4	103.0	4	86.0	6	72.7	7
9th	150.7	7	140.6	7	112.9	5	93.4	1	78.5	7
10th	151.8	5	135.0	6	125.9	5	97.1	7	86.7	5
11th	155.8	7	135.8	2	118.3	8	107.9	4	78.7	9
12th	177.2	9	139.2	4	109.8	3	90.8	1	85.5	7
13th	143.9	3	144.1	5	97.5	8	88.3	5	70.2	..
14th	164.8	7	111.1	6	117.9	1	80.1	5	61.4	6
15th	129.2	6	130.4	2	86.8	5	96.0	4	62.0	1
16th	111.5	3	95.7	1	83.4	7	59.2	4	73.8	7
17th	91.7	4	74.0	3	57.7	1	53.7	3	33.4	1
18th	60.0	..	64.2	2	50.7	4	47.9	1	40.2	1
19th	60.0	1	48.0	..	49.3	3	44.4	1	39.2	4
20th	68.7	5	52.6	2	42.1	3	40.5	4	39.3	2
21st	61.3	1	57.9	1	45.1	2	34.1	3	30.6	3
22d	46.6	1	50.0	1	43.3	2	37.8	2	25.0	..
23d	46.3	3	39.1	1	42.6	4	39.3	3	33.6	2
24th	57.1	1	39.1	6	37.2	5	38.4	1	31.7	3.
25th	46.4	2	53.3	3	36.2	1	29.0	..	33.3	1
26th	64.7	4	39.6	5	47.7	4	33.0	..	28.7	2
27th	69.6	2	58.9	2	34.5	..	42.9	3	30.3	1
28th	79.9	3	64.2	4	54.5	2	33.0	..	37.6	3
29th	52.6	3	70.6	4	58.3	7	50.5	2	30.8	2
30th	53.7	2	44.0	2	59.9	2	49.4	2	41.6	1
31st	64.8	2	47.0	..	40.3	2	49.4	6	39.5	3
32d	58.3	4	50.8	2	40.2	1	27.9	2	34.5	1
33d	33.0	..	44.5	3	41.4	1	27.7	3	19.2	2
34th	26.9	1	28.1	2	29.0	1	24.0	..	21.0	..
35th	9.0	..	7.3	1	9.0	..	6.0	..	6.8	..



TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	71		72		73		74		75	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
5th	2.0	..	....	..	....	..	....	..	....	..
6th	3.0	..	2.0	..	....	..	....	..	....	..
7th	43.6	3	3.0	..	2.0	..	....	..	....	..
8th	100.0	5	39.2	5	2.3	..	2.0	..	....	..
9th	65.4	4	89.7	7	34.0	5	1.4	..	2.0	..
10th	67.9	1	63.0	..	82.8	2	30.0	2	1.0	..
11th	80.8	7	58.0	1	52.7	8	73.4	5	22.1	5
12th	59.8	2	60.3	5	45.0	2	36.3	5	60.0	3
13th	61.1	4	49.7	5	33.8	5	32.5	6	25.4	1
14th	51.5	4	47.9	3	38.9	1	24.8	2	25.6	1
15th	41.3	4	35.0	..	29.2	1	28.4	2	17.8	..
16th	45.2	1	27.0	..	19.2	..	19.5	2	19.0	..
17th	46.9	3	25.8	1	14.0	1	11.5	1	7.4	1
18th	27.1	..	38.1	3	17.4	2	6.2	1	9.0	..
19th	35.3	1	25.3	2	25.8	4	15.0	..	5.0	..
20th	32.7	1	28.4	2	20.2	1	20.4	1	15.0	..
21st	32.8	2	26.4	2	22.6	3	18.2	1	17.6	2
22d	24.5	1	25.9	1	20.1	3	18.0	1	14.3	4
23d	21.6	..	20.7	2	20.2	2	15.5	2	16.9	1
24th	30.0	1	19.0	..	16.4	2	14.7	6	12.6	2
25th	30.3	1	26.6	3	16.6	1	14.6	1	12.0	..
26th	28.8	6	26.7	3	25.0	..	13.9	2	12.0	2
27th	24.7	3	25.6	1	23.9	1	25.7	2	11.0	..
28th	26.1	4	22.9	2	22.8	1	22.0	2	20.7	2
29th	31.3	1	24.8	2	17.2	1	20.6	2	17.8	3
30th	28.6	1	29.4	..	24.0	..	17.0	..	17.9	1
31st	36.0	..	24.6	1	23.9	1	22.3	2	14.0	..
32d	30.1	..	32.3	..	19.9	1	21.0	..	15.1	2
33d	23.7	3	20.9	2	25.1	2	13.2	3	19.0	..
34th	9.0	..	14.0	..	14.4	1	16.6	2	7.0	..
35th	5.4	1	4.0	..	4.1	2	3.0	..	5.6	1

TABLE I.—(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	76		77		78		79		80	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
10th	2.0	..	....	..	....	..	....	..	....	..
11th	1.0	..	2.0	..	....	..	....	..	....	..
12th	13.7	2	1.0	..	2.0	..	....	..	....	..
13th	48.5	3	9.0	..	1.0	..	2.0	..	....	..
14th	17.0	2	31.2	5	5.2	1	1.0	..	2.0	..
15th	19.0	2	9.6	2	19.2	4	4.0	..	1.0	..
16th	11.0	2	13.1	3	6.7	1	13.0	..	1.0	..
17th	9.7	2	7.2	1	7.7	1	3.1	..	6.0	..
18th	4.7	1	4.6	1	4.2	1	4.0	..	2.4	1
19th	5.1	1	3.0	..	3.2	1	4.0	..	2.0	..
20th	3.7	1	5.0	..	2.2	1	2.0	..	4.0	..
21st	10.0	2	4.0	..	4.4	1	2.0	..	2.0	..
22d	13.3	3	8.0	..	3.3	1	4.0	..	2.0	..
23d	10.9	3	11.0	..	7.6	1	3.0	..	4.0	..
24th	15.8	2	9.0	..	11.1	2	8.0	..	3.0	..
25th	10.0	..	13.1	2	10.0	..	9.0	..	5.7	..
26th	10.2	1	10.6	..	11.0	3	9.0	..	7.5	2
27th	9.3	3	6.1	1	9.9	1	9.0	1	7.9	1
28th	11.0	..	8.0	..	5.5	1	9.0	..	7.1	1
29th	17.7	3	10.0	..	7.4	1	4.0	..	8.4	1
30th	13.9	1	15.7	1	8.7	3	6.0	..	4.0	..
31st	12.2	5	10.7	2	13.9	1	6.2	2	5.1	..
32d	14.0	..	11.0	..	4.0	1	11.6	3	5.0	..
33d	11.0	1	11.0	..	4.3	1	3.0	..	8.9	..
34th	9.0	..	6.0	1	7.8	1	2.0	..	1.9	2
35th	2.0	..	2.0	..	1.0	..	2.0	..	....	..

TABLE I.--(Continued).

YEAR OF MEMBER- SHIP.	CURRENT AGE OF INSURED.									
	81		82		83		84		85	
	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.	YEARS OF LIFE.	DEATHS.
15th	1.0	1	..	..	..	..	..	..	..	..
16th	.6	1	.1	1	..	..	..	..	..	..
17th	..	..	..	..	..	..	..	..	..	..
18th	1.0	..	..	..	..	..	..	..	..	..
19th	1.0	..	..	..	..	..	..	..	..	..
20th	1.9	1	1.0	..	..	..	..	..	..	..
21st	4.0	..	1.0	..	.3	1	..	..	..	..
22d	1.7	1	4.0	..	1.0	..	..	..	..	..
23d	2.0	..	1.0	..	3.8	1	1.0	..	..	..
24th	3.1	2	2.0	..	1.0	..	3.0	..	1.0	..
25th	4.0	1	2.0	..	2.0	..	.6	1	3.0	..
26th	5.0	1	1.6	1	2.0	..	2.0	..	..	..
27th	5.5	2	2.9	2	.8	1	1.0	..	1.7	1
28th	6.9	1	4.5	1	2.0	..	..	..	2.0	..
29th	5.5	2	5.1	1	2.7	1	2.0	..	..	..
30th	6.0	..	2.9	2	4.9	..	1.7	1	1.0	..
31st	3.6	1	4.0	..	2.2	..	5.0	..	1.0	..
32d	3.0	..	3.0	..	5.0	..	1.0	..	4.7	1
33d	5.0	..	2.0	..	2.5	1	4.0	..	1.0	..
34th	5.8	1	3.0	..	2.0	..	2.0	..	3.0	..
35th	.5	1	1.0	..	..	..	..	..	..	..

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[illegible][illegible]

TABLE II.

Mortuary Experience of The Mutual Benefit Life Insurance Company from 1845 to 1879, inclusive, showing Comparative Mortality at different Ages.

AGE.	YEARS OF LIFE.	AMOUNT INSURED.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	RATIO.	
							ACTUAL TO PROBABLE DEATHS.	ACTUAL TO PROBABLE LOSS.
12	.3	\$ 990	..	....	\$ ....	\$ 7	....	....
13	2.9	10,580	..	.02	....	79	....	....
14	39.7	141,710	..	.30	....	1,079	....	....
15	70.6	227,810	1	.54	5,000	1,740	1.851	2.874
16	123.3	358,558	..	.95	....	2,745	....	....
17	208.1	569,871	2	1.60	13,500	4,383	1.250	3.080
18	356.9	918,581	1	2.76	1,000	7,106	.362	.141
19	569.4	1,506,709	6	4.44	10,100	11,704	1.351	.863
20	930.5	2,530,255	11	7.28	46,575	19,762	1.511	2.357
21	1,590.6	4,378,434	17	12.51	37,567	34,414	1.369	1.092
22	2,431.7	6,806,004	15	19.25	30,800	53,857	.779	.572
23	3,491.1	10,065,405	25	27.90	64,800	80,128	.896	.809
24	4,679.0	13,899,871	24	37.47	69,200	111,341	.641	.622
25	5,941.4	18,068,069	41	47.88	125,600	145,638	.856	.862
26	7,283.9	22,708,488	63	59.22	223,780	184,618	1.064	1.212
27	8,725.0	27,397,449	59	71.54	167,750	224,652	.825	.747
28	10,163.4	32,418,700	63	84.05	197,590	268,080	.750	.737
29	11,523.8	37,390,625	76	96.10	230,750	311,857	.791	.740
30	12,958.0	43,073,271	73	109.23	244,135	363,099	.668	.672
31	14,078.3	47,379,467	105	119.83	352,709	403,218	.876	.875
32	15,417.6	52,189,059	114	132.75	410,205	449,213	.859	.913
33	16,445.5	56,085,597	108	143.40	405,833	489,110	.753	.830
34	17,384.1	59,812,895	118	153.50	497,925	528,151	.769	.943
35	18,243.8	63,278,780	151	163.28	571,857	566,334	.925	1.010
36	18,874.5	66,440,766	120	171.57	421,100	604,504	.699	.697
37	19,401.4	68,812,542	123	179.09	476,945	635,260	.687	.751
38	19,700.6	70,491,225	157	185.37	595,490	663,290	.847	.898
39	19,979.0	71,771,434	141	192.33	506,049	688,293	.733	.735
40	20,078.2	72,572,666	159	196.59	609,518	710,563	.809	.858
41	19,959.6	72,893,717	172	199.82	713,723	729,616	.861	.978
42	19,642.8	72,222,136	166	201.38	722,453	740,299	.824	.976
43	19,277.9	71,540,732	162	202.83	564,229	752,579	.799	.750
44	18,750.2	70,640,393	183	203.07	702,686	765,029	.901	.919
45	18,352.1	69,208,299	178	204.81	698,255	772,286	.869	.904
46	17,799.6	68,186,479	155	205.77	622,813	788,244	.753	.790
47	16,990.1	66,417,345	164	203.88	674,632	797,033	.804	.846
48	16,389.8	64,849,560	170	205.05	732,635	811,238	.829	.903
49	15,640.9	62,644,549	183	204.85	741,838	821,252	.993	.903
50	14,835.3	60,171,859	201	204.30	816,450	829,170	.984	.985
51	13,950.4	57,112,592	178	202.85	767,793	830,400	.878	.925



TABLE II.—(Continued).

AGE.	YEARS OF LIFE.	AMOUNT INSURED.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	RATIO.	
							ACTUAL TO PROBABLE DEATHS.	ACTUAL TO PROBABLE LOSS.
52	13,088.3	\$53,897,842	163	201.45	\$682,430	\$829,442	.809	.823
53	12,160.4	50,485,506	190	198.58	812,586	824,340	.957	.986
54	11,343.5	47,153,378	150	197.37	653,220	819,401	.760	.797
55	10,511.1	44,050,519	167	195.20	748,625	818,029	.856	.915
56	9,701.5	40,993,904	161	192.91	772,420	814,989	.835	.948
57	8,911.4	37,875,879	175	190.15	795,515	808,250	.920	.984
58	8,101.6	34,588,397	168	185.88	797,750	793,432	.904	1.005
59	7,318.0	31,305,089	165	180.88	792,208	773,853	.912	1.024
60	6,579.9	28,409,950	148	175.62	583,165	758,271	.843	.769
61	5,828.6	25,205,967	152	168.66	675,815	726,215	.901	.931
62	5,171.2	22,179,098	125	161.81	600,279	693,988	.773	.865
63	4,549.8	19,324,049	152	154.45	653,660	655,888	.984	.997
64	3,980.7	16,658,751	128	146.79	616,755	614,209	.872	1.004
65	3,574.8	14,981,699	118	143.44	578,975	602,683	.823	.961
66	3,043.6	12,508,953	116	133.04	444,845	546,776	.872	.814
67	2,584.9	10,558,768	101	123.19	399,600	503,125	.820	.794
68	2,142.0	8,776,139	103	111.39	455,062	456,357	.925	.997
69	1,758.3	7,099,371	86	99.83	354,890	402,968	.861	.881
70	1,422.6	5,757,732	91	88.20	379,700	355,941	1.032	1.067
71	1,146.5	4,656,500	63	77.59	242,345	315,058	.812	.769
72	936.2	3,734,066	52	69.02	265,600	275,210	.753	.965
73	713.5	2,722,122	53	57.19	213,290	218,316	.927	.977
74	557.7	2,061,178	53	48.52	195,130	181,600	1.092	1.074
75	422.8	1,575,441	31	39.89	119,560	148,673	.777	.804
76	305.7	1,089,580	40	31.28	132,190	111,478	1.279	1.186
77	221.9	770,870	19	24.53	49,950	85,605	.775	.584
78	161.3	533,138	28	19.49	110,570	64,414	1.437	1.717
79	120.9	377,675	6	15.93	21,200	49,749	.377	.426
80	90.9	274,585	8	13.12	27,200	39,663	.610	.686
81	67.1	186,965	16	10.65	46,100	29,656	1.502	1.555
82	41.1	131,275	8	7.16	19,500	22,880	1.117	.852
83	32.2	117,276	5	6.17	15,000	22,466	.810	.668
84	23.3	77,890	2	4.92	5,000	16,464	.406	.304
85	18.4	58,590	2	4.34	10,000	13,803	.461	.724
86	10.8	36,440	6	2.87	19,000	9,679	2.091	1.963
87	5.5	14,250	2	1.67	4,500	4,317	1.198	1.042
88	2.0	5,000	..	.69	....	1,733	....	....
89	3.0	6,000	..	1.19	....	2,376	....	....
90	2.3	3,900	1	1.05	3,000	1,773	.952	1.692
91	2.0	3,000	..	1.06	....	1,597	....	....
92	1.0	2,000	..	.63	....	1,269	....	....
93	1.0	2,000	..	.73	....	1,468	....	....
Totals	568,940.6	\$2,117,444,204	6,739	7,947.89	\$27,369,920	\$30,618,775	.848	.894

# TABLE III.

## SYNOPSIS OF TABLE II.

AGE.	YEARS OF LIFE.	AMOUNT INSURED.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	RATIO.	
							ACTUAL TO PROB- ABLE DEATHS.	ACTUAL TO PROB- ABLE LOSS.
12-20	2,301.7	\$ 6,265,064	21	18	\$ 76,175	\$ 48,605	1.167	1.567
21-25	18,133.8	53,217,783	122	145	327,967	425,378	.841	.771
26-30	50,654.1	162,988,533	334	420	1,064,005	1,352,306	.795	.787
31-35	81,569.3	278,745,798	596	713	2,238,529	2,436,026	.836	.919
36-40	98,033.7	350,088,633	700	925	2,609,102	3,301,910	.757	.790
41-45	95,982.6	356,505,277	861	1,012	3,401,346	3,759,809	.851	.905
46-50	81,655.7	322,269,792	873	1,024	3,588,368	4,046,937	.853	.887
51-55	61,053.7	252,699,837	848	996	3,664,654	4,121,612	.851	.889
56-60	40,612.4	173,173,219	817	925	3,741,058	3,948,795	.883	.947
61-65	23,105.1	98,349,564	675	775	3,125,484	3,292,983	.871	.949
66-70	10,951.4	44,700,963	497	556	2,034,097	2,265,167	.894	.898
71-75	3,776.7	14,749,307	252	292	1,035,925	1,138,857	.863	.910
76-80	900.7	3,045,848	101	104	341,110	350,909	.971	.972
81-85	182.1	571,996	33	33	95,600	105,269	1.000	.908
86-93	27.6	72,590	9	10	26,500	24,212	.900	1.095
Totals.	568,940.6	\$2,117,444,204	6,739	7,948	\$27,369,920	\$30,618,775	.848	.894

TABLE IV.

Experience of The Mutual Benefit Life Insurance Company from 1845 to 1879,  
inclusive, during First and Second Years of Membership.

AGE AT EXPOSURE.	YEARS OF LIFE.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	RATIO. ACTUAL TO PROBABLE DEATHS.	AGE AT EXPOSURE.	YEARS OF LIFE.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	RATIO. ACTUAL TO PROBABLE DEATHS.
12	.3	..	..	....	41	2,811.2	25	28.13	.889
13	2.9	..	.02	....	42	2,549.9	19	26.14	.727
14	38.7	..	.29	....	43	2,357.8	19	24.80	.766
15	54.9	1	.42	2.386	44	2,195.5	24	23.77	1.009
16	81.0	..	.62	....	45	2,189.4	13	24.44	.532
17	131.6	..	1.01	....	46	2,085.5	10	24.11	.415
18	232.9	1	1.80	.556	47	1,820.7	15	21.85	.687
19	343.3	3	2.67	1.125	48	1,642.8	13	20.55	.633
20	571.8	6	4.46	1.344	49	1,444.9	11	18.94	.581
21	1,010.7	10	7.94	1.260	50	1,375.7	18	18.96	.949
22	1,424.4	9	11.26	.799	51	1,202.3	14	17.48	.801
23	1,866.0	14	14.85	.943	52	1,031.4	10	15.87	.630
24	2,280.0	6	18.27	.328	53	924.2	8	15.10	.530
25	2,596.3	23	20.94	1.098	54	840.0	9	14.61	.616
26	2,875.9	22	23.38	.941	55	696.2	7	12.93	.541
27	3,259.0	22	26.71	.824	56	653.6	10	13.00	.769
28	3,421.8	17	28.28	.601	57	534.8	13	11.41	1.139
29	3,504.1	16	29.24	.547	58	459.1	7	10.54	.665
30	3,772.0	14	31.79	.440	59	400.2	7	9.89	.707
31	3,760.0	19	32.00	.594	60	364.4	3	9.73	.308
32	3,851.2	24	33.15	.724	61	277.7	4	8.02	.499
33	3,878.4	20	33.81	.592	62	214.9	4	6.72	.595
34	3,779.1	21	33.37	.629	63	184.9	6	6.28	.956
35	3,758.3	27	33.62	.803	64	181.3	1	6.69	.150
36	3,563.9	23	32.39	.710	65	202.1	5	8.11	.616
37	3,478.5	15	32.12	.467	66	67.4	2	2.95	.679
38	3,321.5	14	31.25	.448	67	7.1	1	0.34	2.956
39	3,166.7	21	30.36	.692	68	2.4	..	0.12	....
40	3,084.2	15	30.21	.497					

## SYNOPSIS OF ABOVE TABLE.

AGE AT EXPOSURE.	YEARS OF LIFE.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	RATIO. ACTUAL TO PROBABLE DEATHS.
12-20	1,457.4	11	11.29	.974
21-25	9,177.4	62	73.26	.846
26-30	16,832.8	91	139.40	.653
31-35	19,027.0	111	165.95	.669
36-40	16,614.8	88	156.33	.563
41-45	12,103.8	100	127.28	.786
46-50	8,369.6	67	104.41	.642
51-55	4,694.1	48	75.99	.632
56-60	2,412.1	40	54.57	.733
61-68	1,137.8	23	39.23	.586

TABLE V.

Experience of The Mutual Benefit Life Insurance Company from 1845 to 1879, inclusive, excluding First Fifteen Years of Membership.

AGE AT EXPOSURE.	YEARS OF LIFE.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	RATIO. ACTUAL TO PROBABLE DEATHS.	AGE AT EXPOSURE.	YEARS OF LIFE.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	RATIO. ACTUAL TO PROBABLE DEATHS.
28	6.0	..	.05	....	61	1,892.0	47	54.64	.860
29	9.0	..	.08	....	62	1,750.3	43	54.77	.785
30	12.0	..	.10	....	63	1,583.4	58	53.75	1.079
31	15.6	..	.13	....	64	1,426.2	50	52.59	.951
32	33.0	..	.28	...	65	1,329.0	51	53.33	.956
33	36.2	..	.31	....	66	1,162.1	42	50.79	.827
34	54.4	1	.48	2.082	67	1,028.9	45	49.02	.918
35	110.1	2	.98	2.030	68	902.4	52	46.93	1.108
36	178.6	1	1.62	.616	69	768.1	40	43.60	.917
37	289.4	..	2.67	....	70	670.1	39	41.54	.939
38	442.4	4	4.16	.961	71	570.1	30	38.58	.778
39	584.8	1	5.61	.178	72	488.4	27	36.01	.750
40	791.6	6	7.75	.774	73	392.8	29	31.49	.921
41	996.7	10	9.97	1.003	74	328.9	31	28.62	1.083
42	1,181.3	11	12.11	.908	75	268.9	21	25.38	.827
43	1,319.2	12	13.87	.865	76	204.5	31	20.92	1.482
44	1,517.7	18	16.44	1.095	77	169.1	12	18.78	.639
45	1,722.7	16	19.23	.832	78	133.9	23	16.18	1.422
46	1,899.3	18	21.96	.820	79	113.9	6	15.00	.400
47	2,059.3	23	24.71	.931	80	87.9	8	12.70	.630
48	2,184.1	26	27.32	.952	81	66.1	15	10.48	1.431
49	2,300.5	37	30.15	1.227	82	41.1	8	7.16	1.117
50	2,370.9	34	32.67	1.041	83	32.2	5	6.17	.811
51	2,448.3	34	35.60	.955	84	23.3	2	4.92	.406
52	2,501.6	28	38.50	.727	85	18.4	2	4.33	.461
53	2,466.6	47	40.29	1.167	86	10.8	6	2.87	2.091
54	2,446.2	28	42.55	.658	87	5.5	1	1.67	.600
55	2,414.9	51	44.85	1.137	88	2.0	..	.69	....
56	2,393.7	39	47.60	.819	89	3.0	..	1.19	....
57	2,302.1	49	49.12	.998	90	2.3	1	1.05	.957
58	2,209.5	50	50.68	.987	91	2.0	..	1.06	....
59	2,095.3	36	51.80	.695	92	1.0	..	.63	....
60	2,023.6	49	54.02	.907	93	1.0	..	.73	....

## SYNOPSIS OF ABOVE TABLE.

AGE AT EXPOSURE.	YEARS OF LIFE.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	RATIO. ACTUAL TO PROBABLE DEATHS.
28-35	276.3	3	2.41	1.245
36-40	2,286.8	12	21.81	.550
41-45	6,737.6	67	71.62	.935
46-50	10,814.1	138	136.81	1.009
51-55	12,277.6	188	201.79	.932
56-60	11,024.2	223	253.22	.881
61-65	7,980.9	249	269.08	.925
66-70	4,531.6	218	231.88	.940
71-75	2,049.1	138	160.08	.862
76-80	709.3	80	83.58	.957
81-85	181.1	32	33.06	.968
86-93	27.6	8	9.89	.809



TABLE VI.

Percentage of Mortality ( $\frac{dx}{Lx}$ ) according to the most approved Standard Tables, and The Mutual Benefit Experience (Adjusted), from 1845 to 1879, inclusive.

AGE.	AMERICAN EXPERIENCE.	“OLD” ACTUARIES.	“NEW” ACTUARIES. H <sup>MF</sup>	MUTUAL BENEFIT EXPERIENCE (ADJUSTED).			AGE.	
				DERIVED FROM NUMBER OF DEATHS.				GENERAL EXPERIENCE, DERIVED FROM AMOUNT OF LOSS.
				General Experience.	First and Second Years of Membership.	Excluding First Fifteen Years of Membership.		
25	.008065	.007770	.007002	.006289	.005442	.....	.006610	25
26	.008130	.007887	.007095	.006339	.005474	.....	.006663	26
27	.008197	.008006	.007333	.006395	.005511	.....	.006722	27
28	.008264	.008139	.007586	.006457	.005551	.....	.006787	28
29	.008345	.008275	.007833	.006525	.005595	.....	.006859	29
30	.008427	.008425	.008064	.006601	.005645	.007523	.006939	30
31	.008510	.008578	.008220	.006685	.005700	.007609	.007028	31
32	.008607	.008747	.008368	.006779	.005761	.007703	.007126	32
33	.008718	.008919	.008554	.006883	.005829	.007809	.007235	33
34	.008831	.009095	.008755	.006998	.005905	.007925	.007357	34
35	.008946	.009288	.008996	.007125	.005989	.008055	.007491	35
36	.009089	.009485	.009326	.007267	.006082	.008198	.007640	36
37	.009234	.009687	.009677	.007424	.006186	.008357	.007805	37
38	.009408	.009906	.010000	.007598	.006302	.008534	.007989	38
39	.009586	.010131	.010271	.007791	.006430	.008730	.008192	39
40	.009794	.010362	.010501	.008005	.006573	.008947	.008417	40
41	.010008	.010612	.010687	.008243	.006732	.009188	.008668	41
42	.010252	.010894	.010915	.008506	.006908	.009455	.008945	42
43	.010517	.011251	.011277	.008798	.007104	.009752	.009253	43
44	.010829	.011697	.011727	.009123	.007322	.010081	.009594	44
45	.011163	.012212	.012321	.009482	.007565	.010445	.009973	45
46	.011562	.012839	.013014	.009881	.007835	.010850	.010393	46
47	.012000	.013516	.013719	.010323	.008134	.011299	.010859	47
48	.012509	.014260	.014424	.010814	.008467	.011796	.011375	48
49	.013106	.015061	.015115	.011358	.008838	.012348	.011949	49
50	.013781	.015939	.015778	.011962	.009250	.012961	.012584	50
51	.014541	.016898	.016512	.012631	.009708	.013640	.013289	51
52	.015389	.017947	.017322	.013374	.010217	.014393	.014071	52
53	.016333	.019093	.018315	.014198	.010782	.015229	.014939	53
54	.017396	.020313	.019448	.015111	.011412	.016155	.015901	54
55	.018571	.021664	.020655	.016125	.012111	.017183	.016968	55
56	.019885	.023126	.021960	.017249	.012888	.018324	.018152	56
57	.021335	.024679	.023358	.018496	.013753	.019588	.019465	57
58	.022936	.026386	.024892	.019878	.014714	.020991	.020921	58
59	.024720	.028247	.026695	.021412	.015782	.022547	.022536	59
60	.026693	.030336	.028729	.023114	.016970	.024272	.024328	60



TABLE VI.—(Continued).

AGE.	AMERICAN EXPERIENCE.	“ OLD ” ACTUARIES.	“ NEW ” ACTUARIES.  H <sup>MF</sup>	MUTUAL BENEFIT EXPERIENCE (ADJUSTED).			AGE.	
				DERIVED FROM NUMBER OF DEATHS.		GENERAL EXPERIENCE, DERIVED FROM AMOUNT OF LOSS.		
				General Experience.	First and Second Years of Membership.			Excluding First Fifteen Years of Membership.
61	.028880	.032612	.031043	.025001	.018290	.026186	.026315	61
62	.031292	.035120	.033657	.027094	.019758	.028309	.028519	62
63	.033943	.037840	.036468	.029415	.021490	.030664	.030964	63
64	.036873	.040826	.039374	.031990	.023205	.033276	.033675	64
65	.040129	.044082	.042331	.034846	.025222	.036173	.036683	65
66	.043707	.047614	.045434	.038014	.027464	.039387	.040019	66
67	.047647	.051474	.048665	.041528	.029957	.042951	.043719	67
68	.052002	.055630	.052044	.045426	.032729	.046904	.047824	68
69	.056762	.060087	.055988	.049749	.....	.051289	.052376	69
70	.061993	.064933	.060956	.054544	.....	.056153	.057425	70
71	.067665	.070158	.066862	.059862	.....	.061547	.063026	71
72	.073733	.075805	.073682	.065761	.....	.067531	.069238	72
73	.080178	.081884	.081540	.072304	.....	.074168	.076128	73
74	.087028	.088468	.090042	.079562	.....	.081529	.083770	74
75	.094371	.095560	.097988	.087611	.....	.089695	.092247	75
76	.102311	.103179	.105812	.096540	.....	.098751	.101649	76
77	.111064	.111469	.113220	.106439	.....	.108800	.112076	77
78	.120827	.120444	.121100	.117429	.....	.119940	.123646	78
79	.131734	.130065	.129380	.129609	.....	.132300	.136476	79
80	.144466	.140406	.138680	.143129	.....	.146000	.150706	80
81	.158605	.151436	.149070	.158119	.....	.161210	.....	81
82	.174297	.163194	.160680	.174139	.....	.178070	.....	82
83	.191561	.175912	.174260	.193179	.....	.196780	.....	83
84	.211359	.189678	.188570	.213639	.....	.217530	.....	84
85	.235552	.205095	.202670	.236319	.....	.240540	.....	85
86	.265681	.222480	.217320	.261489	.....	.....	.....	86
87	.303020	.242234	.232480	.289399	.....	.....	.....	87
88	.346692	.265274	.245810	.320359	.....	.....	.....	88
89	.395863	.292382	.259230	.354699	.....	.....	.....	89
90	.454545	.323730	.277780	.392879	.....	.....	.....	90
91	.532466	.360987	.297080	.435029	.....	.....	.....	91
92	.634259	.405263	.310690	.481889	.....	.....	.....	92
93	.734177	.457227	.330290	.533859	.....	.....	.....	93
94	.857143	.516304	.356940	.591509	.....	.....	.....	94
95	1.000000	.584270	.364410	.655449	.....	.....	.....	95
96	.....	.648649	.373340	.726369	.....	.....	.....	96
97	.....	.692308	.468080	.805039	.....	.....	.....	97
98	.....	.750000	.660000	.892289	.....	.....	.....	98
99	.....	1.000000	1.000000	1.000000	.....	.....	.....	99

# TABLE VII.

Actual and Probable Mortality of The Mutual Benefit Life Insurance Company from 1845 to 1879, inclusive, showing Effect of Selection.

YEAR OF MEMBER-SHIP.	YEARS OF LIFE.	AMOUNT INSURED.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL DEATHS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	RATIO.		
							ACTUAL TO PROBABLE DEATHS.		ACTUAL TO PROBABLE LOSS.
							True.	Graded.	
1st	32,438.9	\$111,698,799	329.47	196	\$1,167,628	\$ 663,903	.595	.60	.569
2d	59,387.9	210,998,933	618.39	445	2,263,190	1,501,653	.720	.72	.664
3d	51,839.6	186,839,345	559.38	445	2,087,238	1,773,346	.796	.80	.850
4th	47,189.0	171,233,462	527.13	457	1,990,560	1,790,260	.867	.86	.899
5th	43,285.3	162,114,759	502.29	458	1,904,531	1,847,081	.912	.86	.970
6th	39,685.3	140,655,352	479.08	437	1,830,069	1,649,376	.912	.86	.901
7th	36,722.6	135,797,483	462.34	375	1,782,090	1,635,243	.811	.86	.918
8th	34,229.3	127,133,846	451.07	387	1,743,853	1,631,688	.858	.86	.936
9th	31,876.6	118,439,114	439.74	380	1,697,387	1,584,652	.864	.86	.934
10th	29,546.5	110,265,971	426.97	337	1,653,705	1,446,115	.789	.86	.874
11th	27,084.1	101,060,598	410.15	371	1,572,488	1,589,910	.905	.86	1.011
12th	24,156.0	90,446,198	378.88	317	1,450,859	1,286,122	.837	.86	.886
13th	20,625.0	77,365,703	336.17	287	1,280,467	1,274,351	.854	.86	.995
14th	17,648.4	66,316,471	299.09	274	1,127,757	1,059,807	.916	.86	.940
15th	14,329.9	54,513,292	252.36	217	953,056	917,100	.860	.86	.962
16th	11,160.0	43,216,916	203.99	163	774,422	623,510	.799	.87	.805
17th	7,415.3	31,483,547	140.11	133	582,366	540,066	.949	.88	.927
18th	5,654.9	24,612,774	110.95	94	474,301	468,035	.847	.89	.987
19th	4,755.1	20,824,107	97.97	75	416,345	328,435	.765	.91	.789
20th	4,229.4	18,250,669	91.90	90	381,481	402,340	.979	.93	1.055
21st	3,567.0	15,442,305	82.77	76	340,863	333,755	.918	.95	.979
22d	2,997.2	13,091,826	74.04	72	303,998	298,100	.972	.98	.981
23d	2,618.9	11,730,559	69.18	75	289,871	308,270	1.084	1.01	1.063
24th	2,380.3	10,649,523	67.08	77	279,719	324,978	1.148	1.04	1.162
25th	2,194.8	9,925,080	65.89	61	277,053	223,950	.926	1.03	.808
26th	2,004.3	9,017,322	64.25	82	267,598	390,600	1.276	1.03	1.460
27th	1,838.4	8,198,428	62.24	55	257,198	228,280	.884	1.00	.888
28th	1,694.7	7,562,008	61.31	47	254,109	158,775	.767	.98	.625
29th	1,539.1	6,855,968	59.40	66	248,458	305,894	1.111	.95	1.229
30th	1,376.7	6,030,723	56.65	55	236,443	219,600	.971	.92	.929
31st	1,205.1	5,290,640	52.67	45	221,223	200,425	.854	.88	.906
32d	977.9	4,363,008	46.55	32	198,798	100,800	.687	.85	.507
33d	740.0	3,392,723	38.02	35	167,242	171,600	.921	.83	1.026
34th	433.4	2,009,162	23.99	15	107,214	53,900	.625	.76	.503
35th	113.7	617,590	6.42	8	35,195	38,000	1.246	.76	1.080
Totals.	568,940.6	\$2,117,444,204	7.947.89	6,739	\$30,618,775	\$27,369,920	.848	..	.894

# TABLE VIII.

## SYNOPSIS OF TABLE VII.

YEARS OF MEMBER- SHIP.	YEARS OF LIFE.	AMOUNT INSURED.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL DEATHS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	RATIO.	
							ACTUAL TO PROB- ABLE DEATHS.	ACTUAL TO PROB- ABLE LOSS.
1st-5th	234,140.7	\$ 842,885,298	2,536.66	2,001	\$ 9,413,147	\$ 7,576,243	.789	.805
6th-10th	172,060.3	632,291,766	2,259.20	1,916	8,707,104	7,947,074	.848	.913
11th-15th	103,843.4	389,702,262	1,676.65	1,466	6,384,627	6,127,290	.874	.960
16th-20th	33,214.7	138,388,013	644.92	555	2,628,915	2,362,386	.861	.899
21st-25th	13,758.2	60,839,293	358.96	361	1,491,504	1,489,053	1.006	.998
26th-30th	8,453.2	37,664,449	303.85	305	1,263,806	1,303,149	1.004	1.031
31st-35th	3,470.1	15,673,123	167.65	135	729,672	564,725	.805	.774
6th-15th	275,903.7	1,021,994,028	3,935.85	3,382	15,091,731	14,074,364	.859	.933
16th-25th	46,972.9	199,227,306	1,003.88	916	4,120,419	3,851,439	.912	.935
26th-35th	11,923.3	53,337,572	471.50	440	1,993,478	1,867,874	.933	.937
1st-2d	91,826.8	322,697,732	947.86	641	3,430,818	2,165,556	.676	.631
3d-15th	418,217.6	1,542,181,594	5,524.65	4,742	21,074,060	19,485,051	.858	.925
16th-35th	58,896.2	252,564,878	1,475.38	1,356	6,113,897	5,719,313	.919	.935

TABLE IX.

Mortuary Experience of The Mutual Benefit Life Insurance Company from 1845 to 1879, inclusive, arranged with reference to Years of Issue of Original Policies.

YEAR OF ISSUE.	YEARS OF LIFE.	AMOUNT INSURED.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL DEATHS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	RATIO.	
							ACTUAL TO PROB- ABLE DEATHS.	ACTUAL TO PROB- ABLE LOSS.
1845	8,869.7	\$ 38,684,669	181	184	\$ 834,012	\$ 801,520	1.017	.961
1846	25,897.6	91,062,490	525	489	1,862,831	1,728,707	.931	.928
1847	20,279.4	71,039,429	376	357	1,345,521	1,229,175	.949	.914
1848	13,478.3	47,001,435	235	236	837,135	846,125	1.004	1.011
1849	12,125.2	40,005,273	195	228	679,601	658,160	1.169	.968
1850	6,702.2	25,470,797	107	114	415,370	457,860	1.065	1.102
1851	4,501.9	17,536,648	76	59	294,562	224,940	.776	.764
1852	4,092.7	17,175,188	62	55	257,883	231,100	1.042	.896
1853	4,123.4	15,777,430	56	57	209,616	238,118	1.018	1.137
1854	3,877.1	15,579,196	58	59	238,444	250,915	1.017	1.052
1855	3,535.6	15,061,490	49	42	218,630	189,900	.857	.869
1856	3,681.6	16,217,111	51	54	230,260	262,900	1.059	1.142
1857	4,429.7	21,248,076	58	45	277,212	246,200	.776	.888
1858	8,680.9	35,907,027	118	101	496,601	451,449	.856	.909
1859	13,094.6	57,190,026	177	138	795,767	661,746	.780	.832
1860	13,948.5	60,459,663	183	147	811,117	708,960	.803	.874
1861	9,276.0	47,607,634	127	92	680,990	511,975	.724	.752
1862	17,891.4	80,219,274	244	200	1,147,291	1,044,325	.820	.910
1863	34,678.8	142,531,715	481	426	1,969,239	1,920,960	.886	.976
1864	67,129.8	219,306,429	923	798	3,024,596	2,859,948	.865	.946
1865	51,325.7	185,990,307	703	573	2,606,336	2,253,169	.815	.865
1866	48,324.7	187,019,461	644	527	2,599,401	2,266,970	.818	.872
1867	36,698.9	140,459,667	500	418	2,020,401	1,850,315	.836	.916
1868	41,246.9	167,097,314	544	398	2,323,282	1,939,299	.732	.835
1869	27,734.9	101,509,194	373	269	1,450,110	1,210,557	.721	.835
1870	18,041.4	61,389,528	221	162	847,249	664,328	.733	.784
1871	13,715.3	42,475,094	152	117	486,640	394,493	.770	.811
1872	10,905.4	33,456,191	115	80	360,357	242,348	.666	.673
1873	9,113.6	26,438,416	95	73	285,379	240,395	.768	.842
1874	10,301.7	30,210,362	105	86	318,359	278,257	.819	.874
1875	9,922.8	31,075,293	100	68	327,575	227,966	.680	.696
1876	6,229.1	19,791,327	63	51	208,370	150,470	.810	.723
1877	3,079.6	9,448,044	31	23	97,061	80,270	.742	.827
1878	1,301.6	3,978,165	13	11	40,585	43,100	.846	1.062
1879	704.6	2,024,841	7	2	20,992	3,000	.286	1.429
568,940.6		\$2,117,444,204	7,948	6,739	\$30,618,775	\$27,369,920	.848	.894



TABLE X.

Experience of The Mutual Benefit Life Insurance Company to December 31, 1877,  
on Paid-up Policies for Reduced Amounts allowed in exchange for Policies  
Discontinued.

YEAR OF MEMBER- SHIP.	YEARS OF LIFE.	AMOUNT INSURED.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL DEATHS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	RATIO.	
							ACTUAL TO PROBABLE DEATHS.	ACTUAL TO PROBABLE LOSS.
2d	681.8	\$ 193,704	6.38	4	\$ 1,844	\$ 625	.626	.339
3d	2,011.6	693,504	9.34	8	6,939	4,450	.857	.641
4th	2,983.6	1,346,027	29.81	15	14,032	17,105	.503	1.219
5th	3,650.4	2,015,075	37.98	21	21,958	13,228	.553	.602
6th	4,118.1	2,750,231	44.76	35	31,553	28,508	.782	.903
7th	4,497.9	3,427,729	40.90	30	40,633	39,683	.733	.977
8th	4,675.8	3,944,683	55.52	41	48,800	51,858	.738	1.063
9th	4,691.7	4,219,621	58.35	41	54,376	43,719	.703	.804
10th	4,374.7	4,279,846	56.52	41	57,965	53,320	.726	.920
11th	3,671.8	3,789,540	48.91	35	51,858	31,757	.715	.612
12th	3,095.4	3,283,852	43.21	33	46,528	46,690	.764	1.003
13th	2,395.0	2,553,723	35.13	24	37,935	37,245	.683	.982
14th	1,649.3	1,915,570	25.78	17	29,529	16,240	.659	.550
15th	573.9	762,309	9.14	5	12,304	5,700	.547	.463
16th	258.4	413,605	4.31	2	6,704	3,200	.463	.477
17th	187.9	324,031	3.24	2	5,746	5,300	.616	.922
18th	168.3	296,168	3.01	2	5,549	1,460	.664	.263
19th	120.6	218,189	2.47	..	4,684	....	....	....
20th	73.5	124,906	1.57	2	2,756	5,800	1.271	2.104
21st	53.4	88,146	1.16	..	1,749	....	....	....
22d	53.0	83,069	1.25	..	1,797	....	....	....
23d	52.5	78,852	1.25	2	1,820	2,770	1.601	1.522
24th	50.6	80,233	1.24	4	1,990	3,620	3.239	1.819
25th	55.1	105,350	1.55	..	2,906	....	....	....
26th	61.1	115,111	1.70	..	3,358	....	....	....
27th	68.8	137,686	2.18	3	4,714	1,280	1.377	.272
28th	65.9	136,444	2.38	2	5,422	875	.840	.161
29th	64.2	144,541	2.29	3	5,493	6,600	1.309	1.201
30th	57.8	152,132	1.85	3	5,255	10,500	1.625	1.998
31st	44.5	129,006	1.64	3	5,250	9,425	1.829	1.795
32d	31.7	90,717	1.19	..	3,573	....	....	....
33d	2.0	2,045	.10	..	103	....	....	....
Totals.	44,540.3	\$37,895,645	536.11	378	\$525,123	\$440,958	.705	.840



TABLE XI.

Experience of The Mutual Benefit Life Insurance Company to December 31, 1877, on Paid-up Policies for Reduced Amounts allowed in exchange for Policies Discontinued, on which three or more years' Premiums had been paid.

YEAR OF MEMBER-SHIP.	YEARS OF LIFE.	AMOUNT INSURED.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL DEATHS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	RATIO.	
							ACTUAL TO PROBABLE DEATHS.	ACTUAL TO PROBABLE LOSS.
4th	447.2	\$ 327,098	4.80	2	\$ 3,573	\$ 1,700	.417	.476
5th	1,258.3	1,059,625	13.82	10	11,869	9,825	.724	.828
6th	1,884.4	1,848,638	21.64	19	21,766	20,658	.878	.949
7th	2,420.8	2,587,229	28.98	19	31,391	35,625	.656	1.135
8th	2,759.0	3,150,496	34.74	30	39,769	42,358	.863	1.065
9th	2,915.4	3,461,368	38.51	34	45,395	37,552	.883	.827
10th	2,834.9	3,622,475	38.76	34	49,697	50,670	.877	1.020
11th	2,459.7	3,238,546	34.31	28	44,991	29,790	.816	.662
12th	2,108.5	2,832,932	30.59	32	40,595	46,570	1.046	1.147
13th	1,639.1	2,245,136	24.87	20	33,708	34,695	.804	1.029
14th	1,197.5	1,735,288	19.17	13	26,927	14,640	.678	.543
15th	516.8	740,009	8.25	4	11,968	5,300	.485	.443
16th	258.4	413,605	4.31	2	6,704	3,200	.463	.477
17th	187.9	324,031	3.24	2	5,746	5,300	.616	.922
18th	168.3	296,168	3.01	2	5,549	1,460	.664	.263
19th	120.6	218,189	2.47	..	4,684	....	....	....
20th	73.5	124,906	1.57	2	2,756	5,800	1.271	2.104
21st	53.4	88,146	1.16	..	1,749	....	....	....
22d	53.0	83,069	1.25	..	1,797	....	....	....
23d	52.5	78,852	1.25	2	1,820	2,770	1.601	1.522
24th	50.6	80,233	1.24	4	1,990	3,620	3.239	1.819
25th	55.1	105,350	1.55	..	2,906	....	....	....
26th	61.1	115,111	1.70	..	3,358	....	....	....
27th	68.8	137,686	2.18	3	4,714	1,280	1.377	.272
28th	65.9	136,444	2.38	2	5,422	875	.840	.161
29th	64.2	144,541	2.29	3	5,493	6,600	1.309	1.201
30th	57.8	152,132	1.85	3	5,255	10,500	1.625	1.998
31st	44.5	129,006	1.64	3	5,250	9,425	1.829	1.795
32d	31.7	90,717	1.19	..	3,573	....	....	....
33d	2.0	2,045	.10	..	103	....	....	....
Totals.	23,910.9	\$29,569,071	332.82	273	\$430,518	\$380,213	.820	.883

TABLE XII.

Experience of The Mutual Benefit Life Insurance Company, from 1845 to 1874, on  
TERM POLICIES, arranged with reference to Current Age of the Insured.

AGE AT EXPOSURE.	YEARS OF LIFE.	AMOUNT INSURED.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	RATIO.	
							ACTUAL TO PROBABLE DEATHS.	ACTUAL TO PROBABLE LOSS.
14-20	118.5	\$ 116,400	3	1.	\$ 3,500	\$ 903	3.000	3.876
21-25	808.8	1,088,420	8	6.	5,900	8,694	1.333	.679
26-30	1,203.1	2,185,945	20	10.	42,400	18,117	2.000	2.340
31-35	1,285.9	3,037,650	13	11.	24,500	26,506	1.182	.924
36-40	1,182.8	3,196,040	10	11.	24,700	30,134	.909	.820
41-45	933.9	2,588,785	18	11.	38,300	27,238	1.636	1.406
46-50	748.0	2,162,260	16	9.	48,300	27,132	1.778	1.780
51-55	452.0	1,304,750	8	7.	28,000	21,192	1.143	1.321
56-60	144.0	451,950	1	3.	1,000	10,150	.333	.099
61-67	30.1	97,400	2	1.	5,400	3,178	2.000	1.699
Totals.	6,907.1	\$16,229,600	99	70.	\$222,000	\$173,244	1.414	1.281

TABLE XIII.

Experience of The Mutual Benefit Life Insurance Company, from 1845 to 1874, on  
TERM POLICIES, arranged with reference to Years of Membership.

YEAR OF MEMBER- SHIP.	YEARS OF LIFE.	AMOUNT INSURED.	ACTUAL DEATHS.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	RATIO.	
							ACTUAL TO PROBABLE DEATHS.	ACTUAL TO PROBABLE LOSS.
1st	2,266.3	\$ 5,115,425	29	22	\$ 45,300	\$ 51,576	1.318	.878
2d	1,402.4	3,170,335	27	14	50,100	32,366	1.929	1.548
3d	1,010.7	2,357,000	12	10	38,700	24,863	1.200	1.557
4th	731.8	1,810,260	11	8	30,600	19,959	1.375	1.533
5th	596.7	1,497,310	8	6	21,500	17,082	1.333	1.259
6th	493.9	1,234,810	8	5	24,300	14,395	1.600	1.688
7th	405.3	1,044,460	4	5	11,500	13,003	.800	.884
Totals.	6,907.1	\$16,229,600	99	70	\$222,000	\$173,244	1.414	1.281

TABLE XIV.

Actual and Probable Mortality of The Mutual Benefit Life Insurance Company during each Year from 1845 to 1879, inclusive.

YEAR.	YEARS OF LIFE.	AMOUNT INSURED.	PROBABLE DEATHS, AMERICAN EXPERIENCE.	ACTUAL DEATHS.	PROBABLE LOSS, AMERICAN EXPERIENCE.	ACTUAL LOSS.	RATIO.	
							ACTUAL TO PROB- ABLE DEATHS.	ACTUAL TO PROB- ABLE LOSS.
1845	161.1	\$ 575,485	1.62	1	\$ 5,740	\$ 5,000	.616	.871
1846	1,700.4	5,405,345	17.51	17	54,939	42,768	.971	.778
1847	3,171.4	9,651,190	32.74	26	99,375	68,700	.794	.691
1848	4,083.5	12,409,500	42.54	34	129,477	115,050	.799	.889
1849	4,850.8	14,123,630	50.62	79	148,981	207,350	1.561	1.392
1850	4,963.9	14,885,015	52.85	59	159,792	151,000	1.116	.945
1851	4,908.7	15,271,155	53.62	55	167,310	147,900	1.026	.884
1852	4,689.0	15,043,985	52.90	61	169,630	180,000	1.153	1.061
1853	4,599.2	15,160,190	53.32	39	174,926	118,400	.731	.677
1854	4,617.5	15,626,630	54.81	53	183,650	175,300	.967	.955
1855	4,547.6	15,689,030	55.59	59	188,940	207,000	1.061	1.096
1856	4,583.5	16,244,930	57.44	48	200,025	150,500	.836	.752
1857	4,720.4	17,115,960	60.48	72	214,504	243,015	1.190	1.133
1858	4,906.0	17,966,225	64.06	62	228,290	224,600	.968	.984
1859	5,590.8	20,611,175	72.46	57	261,772	199,250	.787	.761
1860	6,381.4	23,796,615	82.22	64	300,173	272,000	.778	.906
1861	6,615.0	24,640,390	86.74	84	315,842	327,460	.968	1.037
1862	6,631.1	24,409,012	87.90	68	316,736	337,000	.774	.748
1863	8,151.3	30,241,375	106.58	102	388,582	333,900	.957	.859
1864	12,341.0	45,042,480	153.86	155	557,051	541,130	1.008	.971
1865	17,437.6	63,978,710	213.03	172	781,526	605,675	.807	.775
1866	21,784.9	83,302,355	265.94	206	1,018,446	838,700	.775	.824
1867	24,559.0	95,987,970	305.15	226	1,201,410	870,350	.741	.724
1868	27,509.1	110,951,138	348.15	287	1,419,983	1,264,125	.824	.890
1869	30,270.2	125,303,107	390.30	313	1,646,130	1,310,500	.802	.796
1870	31,670.0	130,287,476	420.48	342	1,776,877	1,517,700	.813	.854
1871	32,206.4	130,069,358	439.55	357	1,841,871	1,702,079	.812	.925
1872	32,977.7	130,756,650	461.90	424	1,910,866	2,017,528	.918	1.056
1873	33,593.3	131,296,470	482.58	414	1,974,881	1,710,165	.858	.866
1874	34,233.5	129,904,230	503.89	427	2,019,463	1,895,802	.849	.939
1875	35,718.1	132,130,690	535.74	480	2,104,229	1,923,414	.896	.914
1876	36,816.9	132,603,102	564.36	470	2,167,682	2,104,103	.833	.971
1877	36,501.7	128,224,456	579.10	457	2,175,898	1,767,817	.789	.812
1878	35,896.8	121,642,483	591.52	500	2,155,195	1,993,832	.845	.925
1879	35,551.8	117,096,692	606.34	469	2,158,583	1,900,807	.773	.881
Totals.	568,940.6	\$2,117,444,204	7,947.89	6,739	\$30,618,775	\$27,369,920	.848	.894

## THE CHARTS

ON THE FOLLOWING PAGES WILL PRESENT TO THE EYE THE MOST  
IMPORTANT FEATURES OF THE FOREGOING TABLES.

Chart A exhibits the relation between the death-rates at different ages as shown by the several columns of Table VI. The American Experience Table is taken as the standard for comparison, and is represented by the horizontal line marked 100 per cent.

The position of the colored lines above or below the standard line indicates the degree of variation from the standard and from each other.

The Purple line represents The Mutual Benefit's General Experience, without regard to years of membership.

The Green line represents the Company's Experience on *young* Policies, the statistics being limited to the 1st and 2d years of membership.

The Red line represents the Company's Experience on *old* business, the 1st 15 years of membership being excluded, the observations being restricted between the 16th and 35th years of membership.



Per cent.

Per cent.

120

110

100

90

80

70

60

50

40

30

20

10

Age 25

30

35

40

45

50

55

60

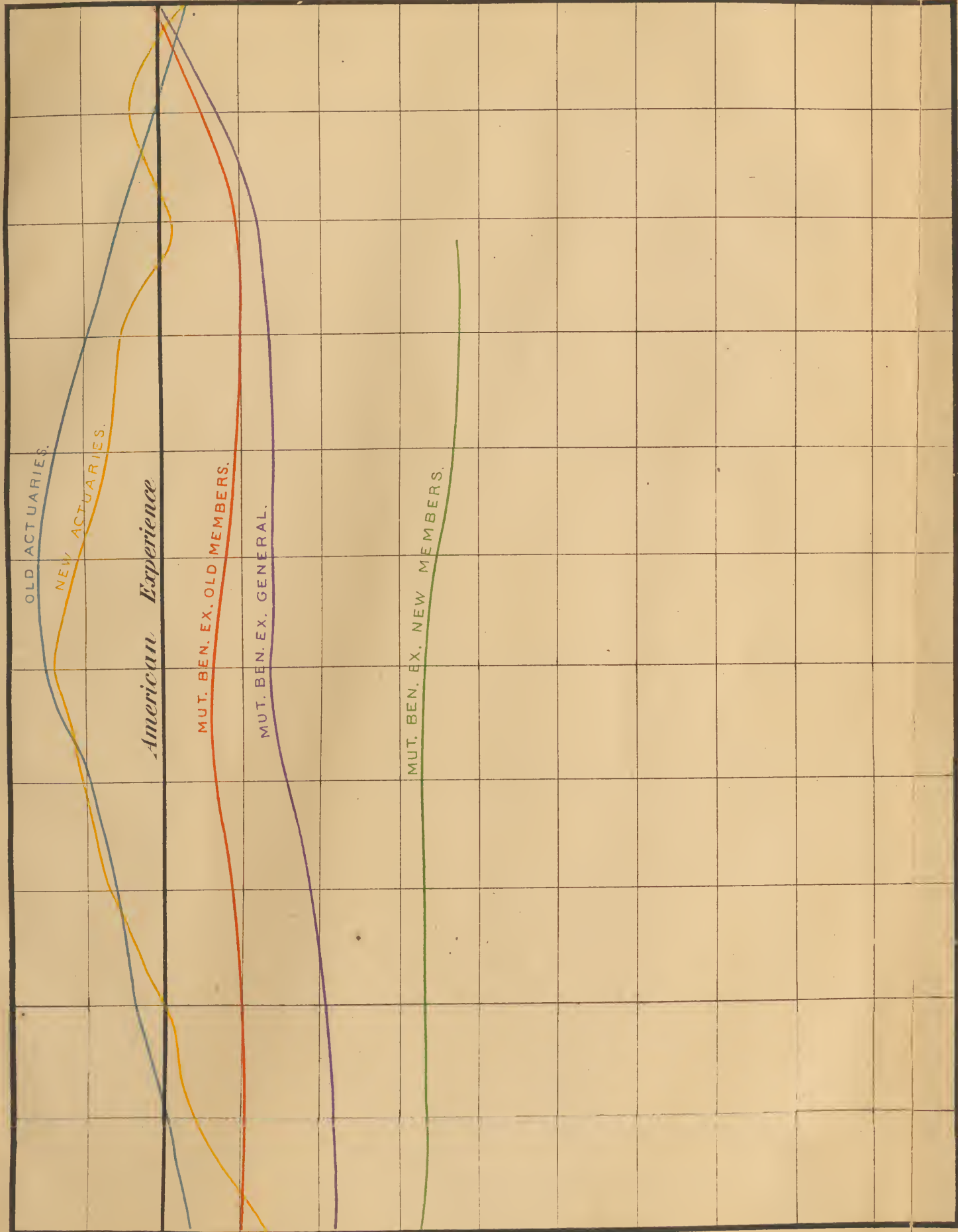
65

70

75

80

Age

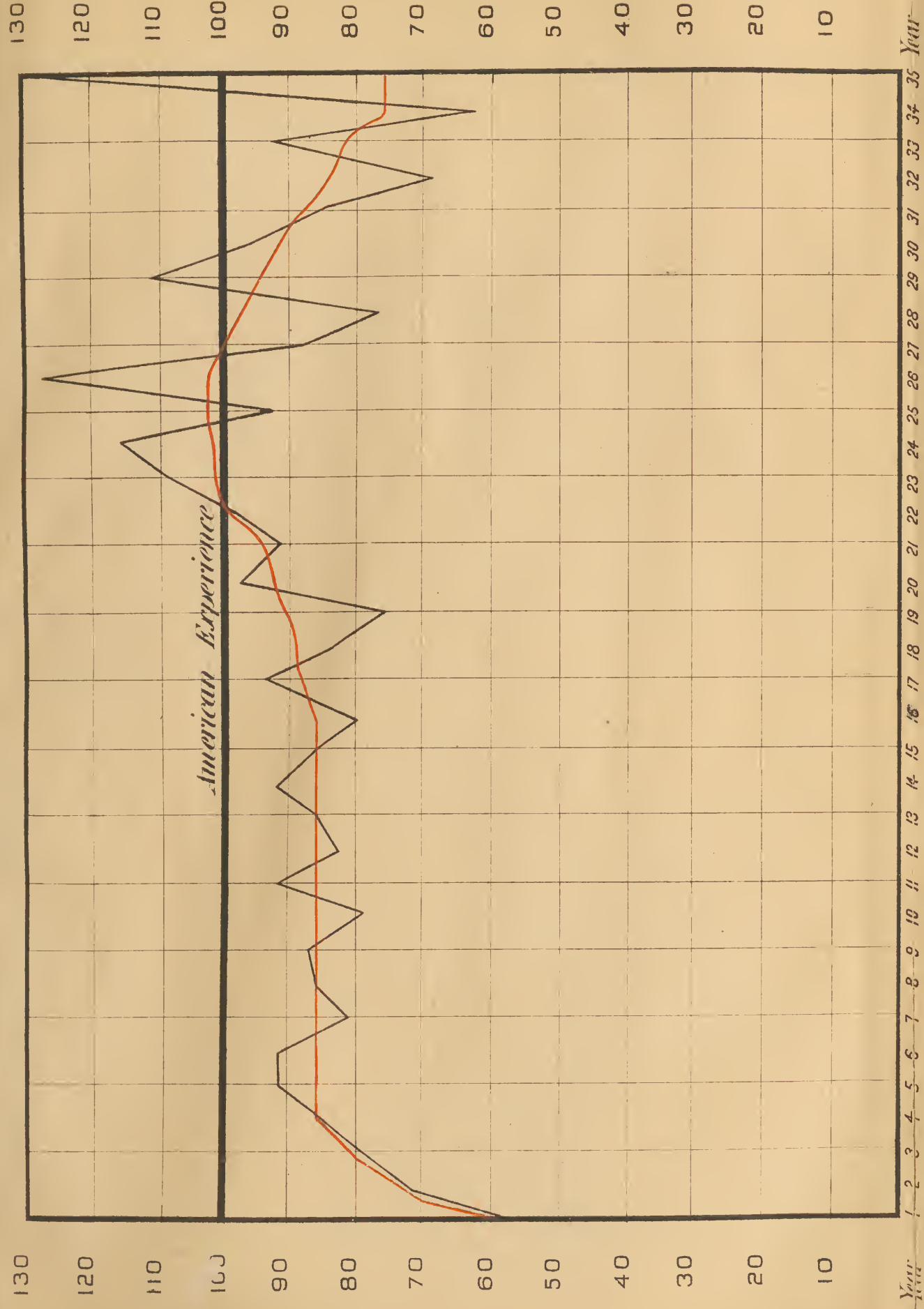




*Contrasting the Actual Deaths during each year of membership with the number predicted by the American Experience Table.*

Per cent.

Per cent.



Year

Year

*The heavy horizontal line represents the tabular rate of mortality.  
The broken black line represents the Company's Actual Experience.  
The curved red line shows the Actual Death Rate Adjusted so as to neutralize marked irregularities.*











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